JEDE

Service Instructions

Lynx

English

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General

1

Service Instructions Lynx

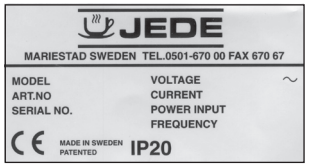
In this section

- ❑ Rating plate
- ❑ The service instructions
- ❑ Symbols
- ❑ Disposal
- ❑ Safety instructions
- ❑ Drink cartridges
- ❑ Technical data

1.1 General

Delivery date:	Supplier:

1.1.1 Rating plate



Warnings for actions that may cause personal injury and important notes.

The illustration shows the machine with two of the drink cartridges removed.

1.1.2 The service instructions

The service instructions are intended for use by personnel who have received product training.

The service instructions are divided into 4 sections, of which:

section 1 contains	**safety instructions and technical data**
section 2 contains	**loading tables, a description of the control system and programming instructions**
section 3 contains	**fault tracing information with repair instructions**
section 4 contains	**a list of spare parts**

In conjunction with the Service instructions is **Operator's manual** which among other things describes the machine functions and operation, along with instructions for installation and maintenance.

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Tel: +46 (0)501 67 000, +46 (0)501 67 067
www.jede.com

1.1.3 Disposal

When the machine is to be disposed of, this must be done in an environmentally friendly manner.

The machine contains printed circuit boards that can be disposed of separately.

Otherwise the machine consists of plastic and metal. All the plastic parts are labelled to facilitate sorting.

If the machine is replaced by a new one, the JEDE AB representative will take back the old machine. This will ensure that the old one is scrapped or recycled in a responsible manner.

1.1.4 Symbols

⚠ *Warnings for actions that may cause personal injury and important notes.*

Remarks, comments or tips for correct use and to avoid incorrect operation.

1.2 Safety instructions

This advice and these warnings are provided so that you can avoid incorrect use and unnecessary risk of accidents, and must be read before the installation, use and servicing of the machine.

This product may only be used for its intended purpose. Any other usage involves a risk of personal injury or damage to the product.

Before servicing this drinks machine – carefully read through these instructions. This is important to ensure correct operation and is a condition for the guarantee to be applicable.

Keep these service instructions in a suitable safe place.

Use of any cleaning agent that contains solvents is absolutely forbidden. The machine can be damaged and poisonous gases may be generated. In addition there would be risk of fire and explosion.

Always remember that the water tank inside the machine contains very hot water and can cause burns if it is touched.

Although the highest quality materials have been used, and great care taken during manufacture, this will not prevent the delivery hose from damage due to wear. Therefore check the hose at regular intervals. By changing it in good time, water damage will be prevented.

For safety reasons, repairs may only be performed by a qualified professional. Repairs performed by an unqualified person may pose a risk to users or interfere with the operation of the machine.

The machine is only completely voltage-free if the electrical plug has been pulled out or the fuse has been unscrewed.

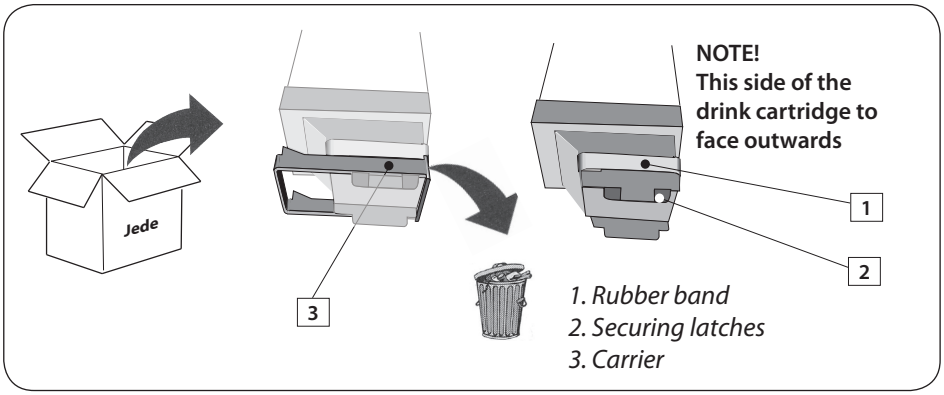
The electrical power point must be located so that the plug can be easily removed if necessary.

Check that the voltage of the electrical power connection conforms to the data on the manufacturer's plate and that the power supply is grounded correctly in accordance with the applicable standards. We recommend that the electrical power supply is equipped with an earth leakage circuit breaker.

Before inserting the power supply plug into the power outlet, check that the water connection has been made in accordance with the instructions, and that the main water tap is open.

The manufacturer disclaims all liability if the electrical connections are not made in accordance with the method described in these instructions.

1.3 Drink cartridges



Open the plastic packaging on the new drink cartridge, push it in and lift off the brown carrier. (This is intended for use with other JEDE products)

NOTE! Make sure that the rubber band is still in place.

1.3.1 Preset value of the number of doses in a drink cartridge

Each drink cartridge has a preset value for the maximum number of doses that can be taken from it. The number varies according to the contents. At the time of installing the machine the types of drink have been determined, and the correct values entered.

If for example there is a change to a type of coffee that was not previously considered, the preset value may need to be adjusted, to prevent the drink running out before this is indicated by a steady red LED, or because the contents are not being optimally used.

1.3.2 Dosing list

Continuously updated.

1.3.3 Dosage management

The Operator's manual describes how the number of doses may need to be adjusted for various reasons. Refer therefore to the Operator's manual, beginning at page 21.

1.3.4 Grouping of the drink cartridges

If there are several cartridges with the same contents in the machine, the software associates them into a group.

The grouping function means that during operation the machine can offer, for example, black coffee until all the coffee cartridges in a group are empty.

1.4 Technical data

Weight:	23 kg excluding drink cartridges and a possible payment system
Height, machine:	665 mm
Width:	350 mm
Depth:	460 mm
Voltage:	230 - 240 V
Current consumption:	10 A via an external fuse
Power rating:	2000 W
Operating voltage:	24 V DC
Hot water tank:	Volume 2.5 litres
Cold water tank:	Volume 10 litres
Capacity:	6 JEDEMATIC drink cartridges
Water connection pressure:	0.2 - 6.0 bar

Gematech Innovation

CE Doc. No. 37004/ENG-1

2

Service Instructions Lynx

Control system

In this chapter

- ❑ Loading table
- ❑ System overview
- ❑ Programming

English

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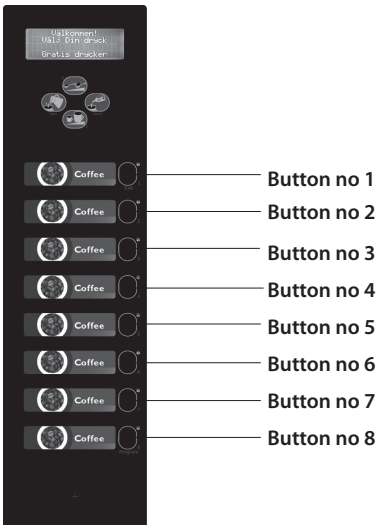
2.1 Loading table

A **loading table** defines where the respective drink cartridges should be placed, the group number of each drink (see Section 1), the number of doses that apply to each type of drink and whether the whisk is to be used or not.

It is vital that the selected loading table is adhered to when the drink cartridges are loaded. Otherwise the drinks menu will not agree with the selections on the front of the machine.

An EPROM in the machine contains a number of loading table variants. On delivery one of these loading tables is loaded into the working memory. It is easy to change this loading table and replace it by any of the others in the following list. Variants can also be modified to suit individual requirements. See more about this in the **'Programming"** section.

2.1.1 Button number



2.1.2 Drink cartridge positions

Loading table no:_____

Position	Drink	Group no
1		
2		
3		
4		
5		
6		

2.1.3 Loading variants for the Lynx

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The Lynx has 14 loading variants as default. Se the following pages for additional information regarding the drinks.

Variant	Position (compartment) and ingredient					
	1	**2**	**3**	**4**	**5**	**6**
1	Arabica	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
2	Arabica	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
3	Arabica	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
4	Arabica	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
5	Arabica	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
6	Arabica	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
7	Arabica	Arabica	Nesquik Lacté	Nesquik Lacté	New Creamlay	Kristal
8	Arabica	Arabica	Nesquik Lacté	Nesquik Lacté	New Creamlay	Kristal
9	Espresso Grande	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
10	Espresso Grande	Espresso Grande	Nesquik Lacté	Kristal	Topping	New Creamlay
11	New Creamlay	Nesquik Lacté	Arabica	Arabica	Arabica	Arabica
12	New Creamlay	Nesquik Lacté	Arabica	Arabica	Arabica	Arabica
13	Arabica	Arabica	Kristal	Whitener	Cappuccino	Nesquik Lacté
14	Arabica	Arabica	Kristal	Whitener	Cappuccino	Nesquik Lacté

	Volume = 18 cl. (Espresso = 5 cl.)	Connected compartments (Box group)	Singel compartments (No box group)
	Volume = 13 cl. (Espresso = 5 cl.)		

Variant	Vol.	Button	Drink	Box 1		Box 2		Box 3		Box 4	Box 5		Box 6	
		Number of dosages	Whipper Yes / No	Arabica		Espresso Grande		Nesquik Lacté		Kristal	Topping		New Creamlay	
1	18 cl.	1	Coffee	4	No									
		2	Café Au Lait	3	No	2	No						4	No
		3	Cappuccino	4	Yes						2	Yes	3	Yes
		4	Café Latte	2	Yes	3	Yes				4	Yes	4	Yes
		5	Latte Macchiato			2	Yes				4	Yes	4	Yes
		6	Espresso Chocco			4	Yes	4	Yes		2	Yes	3	Yes
		7	Chocco Top					4	Yes		2	Yes	3	Yes
	5 cl.	8	Espresso			2	Yes							
				Arabica		Espresso Grande		Nesquik Lacté		Kristal	Topping		New Creamlay	
2	13 cl.	1	Coffee	3	No									
		2	Café Au Lait	2	No	1	No						3	No
		3	Cappuccino	3	Yes						2	Yes	2	Yes
		4	Café Latte	1	Yes	2	Yes				3	Yes	2	Yes
		5	Latte Macchiato			1	Yes				3	Yes	2	Yes
		6	Espresso Chocco			3	Yes	3	Yes		1	Yes	2	Yes
		7	Chocco Top					4	Yes		1	Yes	2	Yes
	5 cl.	8	Espresso			2	Yes							

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Variant	Vol.	Button	Drink	Box 1		Box 2		Box 3		Box 4	Box 5		Box 6	
		Number of dosages	Whipper	Arabica		Espresso Grande		Nesquik Lacté		Kristal	Topping		New Creamlay	
			Yes / No											
3	18 cl.	1	Coffee	4	No									
		2	Coffee International	4	Yes									
		3	Café Au Lait	3	No	2	No						4	No
		4	Cappuccino	4	Yes						2	Yes	3	Yes
		5	Cappuccino International			4	Yes				2	Yes	3	Yes
		6	Café Latte	2	Yes	3	Yes				4	Yes	4	Yes
		7	Cappuccino Chocco			3	Yes	4	Yes		2	Yes	3	Yes
		8	Chocco Top					4	Yes		2	Yes	3	Yes
				Arabica		Espresso Grande		Nesquik Lacté		Kristal	Topping		New Creamlay	
4	13 cl.	1	Coffee	3	No									
		2	Coffee International	3	Yes									
		3	Café Au Lait	2	No	1	No						3	No
		4	Cappuccino	3	Yes						2	Yes	2	Yes
		5	Cappuccino International			3	Yes				2	Yes	2	Yes
		6	Café Latte	1	Yes	2	Yes				3	Yes	2	Yes
		7	Cappuccino Chocco			2	Yes	3	Yes		1	Yes	2	Yes
		8	Chocco Top					4	Yes		1	Yes	2	Yes

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Variant	Vol.	Button	Drink	Box 1		Box 2		Box 3		Box 4	Box 5		Box 6	
		Number of dosages		Arabica		Espresso Grande		Nesquik Lacté		Kristal	Topping		New Creamlay	
			Whipper	Yes	No									
5	18 cl.	1	Coffee	4	No									
		2	Café Au Lait	3	No	2	No						4	No
		3	Cappuccino	4	Yes						2	Yes	3	Yes
		4	Café Latte	2	Yes	3	Yes				4	Yes	4	Yes
		5	Chocolate					6	Yes					
		6	Espresso Chocco			4	Yes	4	Yes		2	Yes	3	Yes
	5 cl.	7	Espresso			2	Yes							
		8	Hot water											
				Arabica		Espresso Grande		Nesquik Lacté		Kristal	Topping		New Creamlay	
6	13 cl.	1	Coffee	3	No									
		2	Café Au Lait	2	No	1	No						3	No
		3	Cappuccino	3	Yes						2	Yes	2	Yes
		4	Café Latte	1	Yes	2	Yes				3	Yes	2	Yes
		5	Chocolao					5	Yes					
		6	Espresso Chocco			3	Yes	3	Yes		1	Yes	2	Yes
	5 cl.	7	Espresso			2	Yes							
		8	Hot water											

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Variant	Vol.	Button	Drink	Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
		Number of dosages	Whipper	Arabica	Arabica	Nesquik Lacté	Nesquik Lacté	New Creamlay	Kristal
			Yes / No						
7	18 cl.	1	Coffee	4	No				
		2	Coffee with sugar	4	No				2 No
		3	Coffee white	4	No			4 No	
		4	Coffee white with sugar	4	No			4 No	2 No
		5	Chocolate			6	Yes		
		6	(empty)						
		7	(empty)						
		8	Hot water						
				Arabica	Arabica	Nesquik Lacté	Nesquik Lacté	New Creamlay	Kristal
8	13 cl.	1	Coffee	3	No				
		2	Coffee with sugar	3	No				1 No
		3	Coffee white	3	No			2 No	
		4	Coffee white with sugar	3	No			2 No	1 No
		5	Chocolate			5	Yes		
		6	(empty)						
		7	(empty)						
		8	Hot water						

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Variant	Vol.	Button	Drink	Box 1	Box 2	Box 3		Box 4	Box 5		Box 6	
		Number of dosages	Whipper	Espresso Grande	Espresso Grande	Nesquik Lacté		Kristal	Topping		New Creamlay	
			Yes / No									
9	5 cl.	1	Espresso	2	Yes							
	18 cl.	2	Café Au Lait	4	No						4	No
		3	Cappuccino International	4	Yes				2	Yes	3	Yes
		4	Café Latte	5	Yes				4	Yes	4	Yes
		5	Latte Macchiato	2	Yes				4	Yes	4	Yes
		6	Espresso Chocco	4	Yes	4	Yes		2	Yes	3	Yes
		7	Cappuccino Chocco	3	Yes	4	Yes		2	Yes	3	Yes
		8	Chocco Top			4	Yes		2	Yes	3	Yes
				Espresso Grande	Espresso Grande	Nesquik Lacté		Kristal	Topping		New Creamlay	
10	5 cl.	1	Espresso	2	Yes							
	13 cl.	2	Café Au Lait	3	No						3	No
		3	Cappuccino International	3	Yes				2	Yes	2	Yes
		4	Café Latte	3	Yes				3	Yes	3	Yes
		5	Latte Macchiato	1	Yes				3	Yes	2	Yes
		6	Espresso Chocco	3	Yes	3	Yes		1	Yes	2	Yes
		7	Cappuccino Chocco	2	Yes	3	Yes		1	Yes	2	Yes
		8	Chocco Top			4	Yes		1	Yes	2	Yes

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Variant	Vol.	Button	Drink	Box 1		Box 2		Box 3	Box 4	Box 5	Box 6	
		Number of dosages	Whipper	New Creamlay		Nesquik Lacté		Arabica	Arabica	Arabica	Arabica	
			Yes / No									
11	18 cl.	1	Coffee					4				No
		2	Coffee white	4	No			4				No
		3	Chocolate			7	Yes					
		4	(empty)									
		5	(empty)									
		6	(empty)									
		7	(empty)									
		8	Hot water									
				New Creamlay		Nesquik Lacté		Arabica	Arabica	Arabica	Arabica	
12	13 cl.	1	Coffee					3				No
		2	Coffee white	2	No			3				No
		3	Chocolate			5	Yes					
		4	(empty)									
		5	(empty)									
		6	(empty)									
		7	(empty)									
		8	Hot water									

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Variant	Vol.	Button	Drink	Box 1	Box 2	Box 3	Box 4	Box 5	Box 6
		Number of dosages	Whipper Yes / No	Arabica	Arabica	Kristal	Whitener	Cappuccino	Nesquik Lacté
13	18 cl.	1	Coffee	4	No				
		2	Coffee with sugar	4	No	2 No			
		3	Coffee white	4	No		3 No		
		4	Coffee white with sugar	4	No	2 No	3 No		
	5 cl.	5	Espresso	2	Yes				
		6	Cappuccino					12 Yes	
		7	Chocolate						7 Yes
		8	Teawater						
				Arabica	Arabica	Kristal	Whitener	Cappuccino	Nesquik Lacté
14	13 cl.	1	Coffee	3	No				
		2	Coffee with sugar	3	No	1 No			
		3	Coffee white	3	No		2 No		
		4	Coffee white with sugar	3	No	1 No	2 No		
	5 cl.	5	Espresso	2	Yes				
		6	Cappuccino					8 Yes	
		7	Chocolate						5 Yes
		8	Teawater						

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2.2 System overview

2.2.1 Control units

The system consists of the following sub-systems:

- ❑ BM Ordering module control unit - BM
- ❑ Tank module control unit - TM

See more about this in the 'Circuit board control system' section, chapter 3.

2.2.2 Documentation overview

These **Service Instructions** describe all the parameters that can be programmed/displayed, and the commands that can be executed.

The **Operator's Manual** contains descriptions of the programming that the user can perform, without the need to engage service personnel.

2.2.3 Authorization

The system has three authorization levels, A, B and C, associated with the type of programming.

- ❑ Customer programming (authorization level A). Described in the 'Operator's Manual'.
- ❑ Recipe programming (authorization level B)
- ❑ System programming (authorization level C)

Each authorization level has its own service code. In the case of authorization level A the code is preset to 0000 and does not need to be entered. Configuration with this authorization is performed by the user.

Service codes B and C are also preset and are given in the delivery documentation.

Personnel who are to manage the recipes and system, i.e. be assigned authorization levels B and C, enter their codes in the ***"Password"*** menu.

These thereby open the menus that require these codes (see below, and the programming example later in these instructions).

Authorization level B covers level A and authorization level C covers level B.

2.2.4 Customer programming

With A authorization it is also possible to display an amount of non-alterable statistical information, such as the **total value of sales, amount of money in the coin box** (if the machine includes a coin mechanism), **the total number of sales, the total number of sales per drink** and **the total number of faults per fault code.**

See more about this in the ***'Menu overview'*** section.

2.2.5 Recipe programming

The amount of water to be added to the drink, the number of doses and the application of whisking are determined here. See more about this in the ***'Menu overview'*** section.

2.2.6 System programming

Here it is possible to state whether **the basic settings** shall be used or not, **which country** and **which coin table** shall apply, **the water temperature** in the tank and **resetting of all the statistical information.**

See more about this in the ***'Menu overview'*** section.

2.2.7 The machine modes of operation

The machine has five 'states' or functional modes:

- ❑ Operating mode
- ❑ Charging mode
- ❑ Service mode
- ❑ Test mode
- ❑ Programming mode

2.2.7.1 Programming mode

Settings: When the machine door is closed, the electrical plug is inserted into the wall socket.

When the electrical plug is inserted into the wall socket, the data is read out from the EPROM and stored in RAM. In order to be able to read and write data as quickly as possible to the EPROM, nothing else happens during this period. Thus the display cannot be updated, so it is completely blank. In the case of the very first start-up, certain data is initiated and written back to the EPROM. Writing to the EPROM takes longer than reading from it, so during the very first start-up the display remains blank for longer than during subsequent starts.

When this part of the starting sequence has been completed, the machine is **ready for operation.**

If a button is pressed, drink selection begins. If no button is pressed in the next 10 seconds, drink selection ceases.

If a coin is placed in the coin mechanism, payment begins. The cash balance is shown on the display.

If a drink has been selected and the cash balance is too low, payment begins after the selection of a drink. The display shows how much is to be paid. If no button is pressed within the next 10 seconds, drink selection ceases.

2.2.7.2 Charging mode

In the Lynx machine, charging and rinsing take place via a "change panel" located on the inside of the door.

Settings: Open the door when the machine is in operating mode.

Charging of the drink cartridges and rinsing of the mixer bowls are described in detail in the **Operator's Manual.**

2.2.7.3 Service mode

In this 'mode' the machine can be operated without the water functions being activated (filling and water heating).

Settings:

- ❑ Remove the mains power plug from the wall socket while the door is closed
- ❑ Open the door
- ❑ Put the mains power plug back into the wall socket.

2.2.7.4 Test mode

The machine components are tested by means of the software.

The ***"Test operation"*** section in **Chapter 3** contains a detailed description and setting up instructions.

2.2.7.5 Programming mode

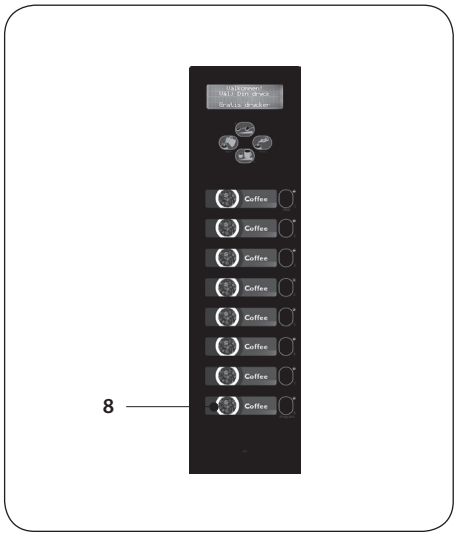
Please refer to the next page.

2.3 Programming

The machine is equipped with a microprocessor to control the dosing system and to store data (statistical information).

On delivery, the microprocessor is preset for the basic version. The system can be easily updated in accordance with individual wishes by using the instructions below.

The programming language is English.



2.3.1 Programming mode

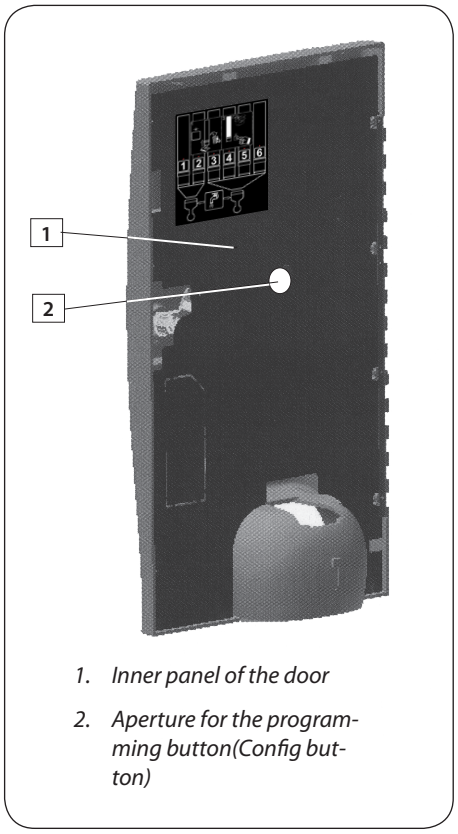
1 Open the door.

2 Hold button 8 pressed in for about 10 seconds.

The door may be closed or left open.

The display will show the Main Menu

Alternatively it is possible to press directly on the **programming button** (Config. button) on the control printed circuit card behind the inner panel of the door. Use a pen or similar thin object.



1. *Inner panel of the door*
2. *Aperture for the programming button(Config button)*

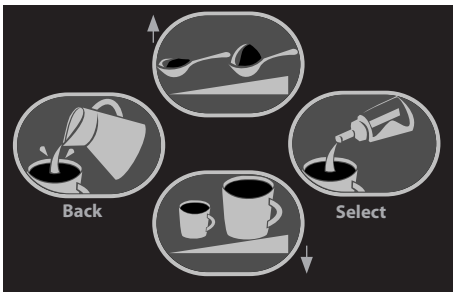
2.3.2 Button functions and navigating in the programming mode

When the machine is in the programming mode, the additive buttons on the menu panel change their functions.

When **UP** and **DOWN** (see the arrow markings) are pressed, the menu cursor moves up or down along the left side of the menu alternatives on the display.

When **Select** is pressed, the alternative that the cursor is pointing at is selected, and if the cursor is pointing at a sub-menu the alternatives for that sub-menu are displayed. If the cursor is instead pointing at a parameter when Select is pressed, the parameter is then shown in its editing mode (if the user has the authority to edit parameters) or the display mode (if the user does not have the authority to edit parameters). In the latter case the value is shown continuously.

If **Back** is pressed, the previous menu is displayed.



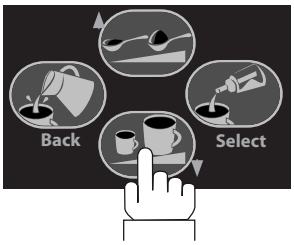
Not all the menus and parameters are always shown. The menus and parameters that are shown depend on the user's authorization level and also on the values for parameters in other places in the menu system.

1 Open the door and hold **button 8** on the menu panel pressed in for 5 seconds.

The display indications:

```
MAIN MENU
->PASSWORD
  DISPLAY LANGUAGE
  BEVERAGE BUTTONS
```

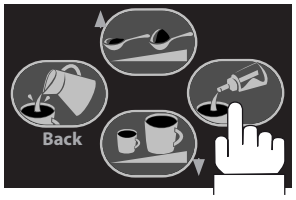
2 Press the **DOWN** arrow to go to the desired sub-menu, e.g. "BEVERAGE BUTTON"




```
MAIN MENU
  PASSWORD
  DISPLAY LANGUAGE
->BEVERAGE BUTTONS
```

```
MAIN MENU
->PASSWORD
  DISPLAY LANGUAGE
  BEVERAGE BUTTONS
  OPTION BUTTONS
  VARIANT SETTINGS
  MACHINE SETTINGS
  PAYMENT
  MACHINE INFO
  STATISTICS
  HARDWARE TEST
```

3 Press **SELECT** to go to the sub-menu.




```
BEVERAGE BUTTON
->BUTTON X
  COPY  BUTTON
```

4 Continue in the same way until the display shows the value that is to be edited.

If the value can be edited, and the correct authorization code has been entered, the value will flash on and off. Otherwise the value will remain shown continuously.

Increase or decrease the value using the **UP** or **DOWN** arrow keys to obtain the required value.

Confirm the value using **SELECT**

Go back in the Menu List using **BACK**.

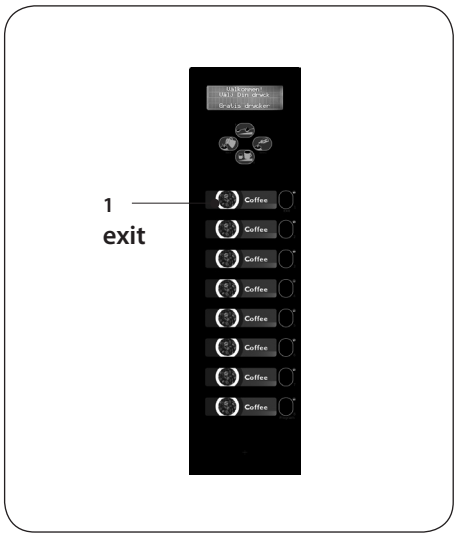
2.3.3 Completion of programming

1 Return to the Main Menu

2 Press **button 1** (exit)

When programming is exited in this way, the changes that have been made are stored as permanent. If the power to the machine is cut off before programming has been exited in this way, the changes will be lost.

If a parameter and the authorization level permit a value to be changed, the current value is shown flashing.



2.3.4 Menu overview

The programming of the machine is based on a number of menus.

The display on the front of the machine has four rows, with 20 characters in each row.

The parameters are either alterable or non-alterable, the latter applying to statistical and similar information.

Alterable parameters and statistical information are obtained by selecting **Main menu**, and in some cases **Sub-menu.**

Password				A/A	Authorization level Value: 0000-9999 Here the authorization code can be changed. The code has 4 characters. **Authorization A** The code is 0000 and does not need to be entered. **Authorization B** The code is reserved for authorized service technician. **Authorization C** The code is reserved for authorized service technician.
Display Language				A/C	Language setting Swedish German French English Czech Finnish Norwegian Spanish Hungarian Dutch
Beverage Buttons	Button X	Price		A/B	Price for a single drink Value: 0.000-9999 For drink selection buttons 1-8 the price of the drink is shown here. If the number of decimals in the price has been defined as 2, 00.00 is shown when editing begins. If authorization code B has been entered, the first two figures before the decimal point flash on and off. After editing using the **UP** and **DOWN** arrows and **SELECT**, the pair of digits after the decimal point flash on and off. **NOTE!** To be able to edit the price, "Same price for all" must be set to "NO". Refer to the menu: **Main menu>Payment>Price Settings>Same price for all** For the number of decimal places, refer to the menu: **Main menu>Payment>Coin Validator > No of decimals**

		Volume		A/B	Volume for a single drink. Value: 0-24 **Can be seen on the loading table. Does not normally need to be edited.** The volume is either 13,18 or 24 cl.
		Valve		A/B	Hot or cold drink. Value: Hot Water/Tea Water/Cold Water **HotWater Settings:** The machine usually has three outlet valves. All are for hot water. The valve that is to be used is selected automatically and cannot be set. This is therefore the normal setting. **ColdWater Settings**: A further outlet valve can be fitted and connected, to run cold water from a separate cooling unit. The presence of a fourth outlet valve is stated here with this setting.
		Ingredient X	Box	A/B	Product in a drink. Value: 1-6 (the current group is also shown) **Can be seen on the loading table. Does not normally need to be edited.**
			Dosages	A/B	Number of doses of a product in a drink. Value: 1-10 **Can be seen on the loading table. Does not normally need to be edited.**
			Singel	A/B	If a product is to be dispensed on its own. Value: Yes or No **Can be seen on the loading table. Does not normally need to be edited.**
			Whipper Speed	A/B	Whipper speed. Value: Off/Slow/Medium/Fast **Can be seen on the loading table. Does not normally need to be edited.**
			Whipper Time Setup		Defines when during serving a product is to be whipped. Value: Delay: 0 % Run: 25% Delay: 25% Run: 25% Delay: 50% Run: 25% Delay: 75% Run: 25% Delay: 0 % Run: 50% Delay: 25% Run: 50% Delay: 50% Run: 50% Delay: 0 % Run: 75% Delay: 25% Run: 75% Delay: 0 % Run: 100% "Delay 0%" means that whisking begins immediately after the start of the preparation time. "Delay 0%" and "Run 100%" mean that whisking takes place during the entire period of preparation.

		Add Ingredient		B/B	Add an ingredient to a recipe. **Only edited in the case of a deliberate deviation from the loading table.**
		Delete last ingredient		B/B	Remove the last ingredient in a recipe. **Only edited in the case of a deliberate deviation from the loading table.**
		Options	Alter Strength	A/B	**The following four menus under "Options" are only shown if the menu: Main menu>Option Buttons>Override btns is set to "YES". This means that specific settings for volume, whitener and sugar made for each drink button apply before the selection buttons.** Defines whether the strength of a recipe may be changed by a customer. Value: Enabled/Disabled Defines whether the **"STRONG DRINK**" selection button may or may not be used when preparing a drink.
			Alter volume	A/B	Defines whether the volume in the cup may be changed by a customer. Value: Enabled/Disabled Defines whether the **"CUP/JUG"** selection button may or may not be used when preparing a drink. **NOTE!** Preparing for a jug may be permitted even if this menu item is set to "Disabled".
			Alter whitener	A/B	Defines whether the amount of whitener in a recipe may be changed by a customer. Value: Enabled/Disabled Defines whether the **"EXTRA WHITENER"** selection button may or may not be used when preparing a drink.
			Alter sugar	A/B	Defines whether the amount of sugar in a recipe may be changed by a customer. Value: Enabled/Disabled Defines whether the **"EXTRA SUGAR"** selection button may or may not be used when preparing a drink.
		Test recipe		B/B	Test a recipe Value: No editing Start dispensing a drink for the current button.
	Copy Button	Execute		C/C	Copy a recipe from one button to another. The button that is to be copied and the destination are set by the **Main Menu>Beverage Buttons>Copy Button>From button** and the **Main Menu>Beverage Buttons>Copy Button>To button** **Only edited in the case of a deliberate deviation from the loading table.**

	Alter volumes			B/B	This menu will only be visible if actual loading schedule is set to 'User defined'. The alternatives are: +/- 0 cl +1 cl +2 cl +3 cl +4 cl +5 cl -1 cl -2 cl -3 cl -4 cl -5 cl This menu increases or decreases the water volume for all recipes with specified number of cl (centiliter). After selecting, this parameter is reset to +/- 0 cl.
Option Buttons	Strength Option			A/B	The following menus under "Option Buttons" are only shown if the menu: **Main menu>Option Buttons>Override btns** is set to **"YES".** **The difference between the above is that the selection buttons now apply when setting the volume, mil and sugar before the drink buttons.** Defines whether the strength of a drink may be changed by a customer. Value: Enabled/Disabled
	Strenth Price			A/B	The price of an extra strength drink. Value: 0.000-9999 See the Main menu. Also refer to the **Charge Mode** menu below.
	Sugar Option			A/B	Defines whether a customer is allowed to add extra sugar. Value: Enabled/Disabled See the Main menu.
	Sugar Price			A/B	The price of extra sugar. Value: 0.000-9999 See the Main menu.
	Whitener Option			A/B	Defines whether a customer is allowed to add extra whitener. Value: Enabled/Disabled See the Main menu.

	Whitener Price			A/B	The price of extra whitener. Value: 0.000-9999 See the Main menu. Also refer to the **Charge Mode** menu below.
	Volume Option			A/B	Defines whether the volume of a drink may be changed by a customer. Value: Enabled/Disabled See the Main menu.
	Volume Price			A/B	The price of extra volume. Value: 0.000-9999 See the Main menu. Also refer to the **Charge Mode** menu below.
	Charge Mode			A/B	Defines whether the customer will be debited a fixed amount for a changed drink, or whether the price will depend on how much the customer changes the drink. Value: Flat rate/Incremental **Example:** The Sugar Price is set at 0.10. If this menu is set to "Flat rate" , 0.10 will be added to the price of the drink regardless of whether the customer wants to add 1 or 2 extra doses of sugar. If this menu is set to **"Incremental"** , 0.10 will be added to the price of the drink if the customer wants to add 1 extra dose of sugar. If the customer wants 2 extra doses of sugar, 0.10 + 0.10 = 0.20 will be added to the price of the drink.
	Override btns			A/B	When this is activated, the settings under [Option buttons] apply in the first place, and the possibility to affect the choice for each button [Beverage Buttons>Button X>Options] is not shown. Value: Yes or No
Variant settings	Variant			A/B	Defines the loading table. Value: 1 - 8/User Defind **User Defind** means that the Beverage Buttons and Option Buttons **can be** programmed in for each drink selection button.
	Edit variant Table	Boxgroup box X		A/B	Defines which group a particular cartridge will belong to. Changes the loading table stated above. A loading table cannot be changed, but if on the other hand, for example, loading table 7 is defined to start with, and then "User Defind" is selected in the above menu, it is possible to freely program a customised program that is based on loading table 7, in which the group that a particular cartridge must belong to can be defined.

	Sugar Position			A/B	Defines which cartridge contains sugar. Value: 1 - 6 (the current group is also shown) Changes the loading table stated above. A loading table cannot be changed, but if on the other hand, for example, loading table 7 is defined to start with, and then "User Defind" is selected in the above menu, it is possible to freely program a customised program that is based on loading table 7, and there define which cartridge contains sugar
	Whitener Position			A/B	Defines which cartridge contains whitener. Value: 1 - 6 (the current group is also shown) Changes the loading table stated above. A loading table cannot be changed, but if on the other hand, for example, loading table 7 is defined to start with, and then "User Dfind" is selected in the above menu, it is possible to freely program a customised program that is based on loading table 7, and there define which cartridge contains whitener.
	Topping Position			A/B	Defines which cartridge contains topping. Value: 1 - 6 (the current group is also shown) Changes the loading table stated above. A loading table cannot be changed, but if on the other hand, for example, loading table 7 is defined to start with, and then "User Dfind" is selected in the above menu, it is possible to freely program a customised program that is based on loading table 7, and there define which cartridge contains topping.
Machine Settings	Water temp			A/B	Defines the water temperature. Value: 75 - 90°C
	Def Cup-size			A/B	Defines the current cup size. Value: Standard Jede 13cl/Medium Jede 18 cl/Large Jede 24 cl. This menu is used when it is required to change the cup size for the complete loading table that has been selected. **Example**: Loading table 1 has been selected as a basis, with the "User Defind" supplement as described above. The cup size in loading table 1 is 18 cl. This menu can be used to change this value to, for example, 24 cl. In that case all the drinks in the loading table will be recalculated to that volume and the dosing increased proportionately.

	Jug Setting			A/B	Defines whether a jug of coffee can be purchased, and if so, how many cups the jug may hold. Value: YES or NO The values that can be set are: "Disabled" "1 cup" "2 cups" "3 cups" "4 cups" "5 cups" "6 cups" "7 cups"
	Rinse reminder			B/B	The alternatives are: Disabled 1 Day 2 Days 3 Days 4 Days 5 Days If this menu is set to anything other than ***'disabled',*** a reminder to wash the machine will show up on the display after set number of days.
	Cup-sensor option			C/C	Activates the cup sensor. Value: Enabled/Disabled The cup sensor is a standard feature of the machine. This menu, however, permits the function to be switched off.
	Dosage counting			C/C	Defines whether the empty indication for drink cartridges will be activated or not. This menu is only shown if the selected charging scheme does **NOT** have grouped cartridges. Value: Enabled/Disabled
	Power save			C/C	Activates the power saving mode. Value: S.L.E.P/Timer/Off **The Timer mode** switches off the machine when a certain time since the last purchase has elapsed. **The S.L.E.P mode** is a smart mode in which the machine learns itself which times of the day it is used, and switches itself off or on accordingly.
	Volum Alarm	Filter Alarm		C/C	Sets the volume alarm. Value: Off/1000 L/2000 L/ 4000 L/6000 L/8000 L The stated volume is that volume that has been dispensed (since the latest reset) using normal settings due to customers purchasing drinks. The intention is that the alarm shall provide a warning if, for example, an external filter is required to be changed because a certain amount of water has passed through the machine.

		Descale Alarm		C/C	Sets the descaling alarm. Value: Off/1000 L/2000 L/ 4000 L/6000 L/8000 L The stated volume is that volume that has been dispensed (since the latest reset) using normal settings due to customers purchasing drinks. The intention is that the alarm shall provide a warning if descaling is required because a certain amount of water has passed through the machine.
	Descale			C/C	This menu starts the descaling process when descaling the hot water tank. Description can be found in the Operator's Manual under chapter ***'12.2 Descaling of hot water tank'***
Payment	MDB	Cashless		A/C	Activate Cashless key. Value: Enabled/Disabled
		Revalue		A/C	Activate recharging of the Cashless key. Value: Enabled/Disabled
		Multi-vending		A/B	Activates MDB multivending. Value: Enabled/Disabled **Enabled** means that the limit for the value that can be charged in the machine can be increased from the most expensive drink price to 5 times this value. **Disabled** means that the maximum value for the most expensive drink can be entered into the machine.
		Discount amount		A/C	Discount when purchasing with a key. The discount is to be stated in round numbers.
	Coin Validator	Coin table			Defines the type of coin currency that matches the coin validator. Value: Cyprus/Czech Republic/Denmark/Estonia/Euro/ Great Britain/Great Britain2/Hungary/Iceland/Latvia/ Lithuania/Norway/Poland/Russia/Slovenia/Sweden/ Switzerland/Turkey/USA/User Defined
		Coin Value X		A/C	Sets the value for a coin. Value: 0.000 - 9999. Here there are 6 sub-menus, one for each coin channel in the coin validator. In the case for example of "Coin Value 3", the value of the coins that can be accepted in coin channel 3 is set, and so on.
		No of decimals		A/C	Defines the number of decimals in the price display on the machine. Value: 0 - 3
		Token		A/C	Defines whether tokens may be used in the machine. Value: Enabled/Disabled

	Price Settings	Same price f. all		A/C	Defines whether all drinks shall have the same price. Value: Yes or No
		Price for all		A/C	Defines the price for all drinks.
	Jackpot			A/C	Defines whether the jackpot function will be activated. Value: Enabled/Disabled
	Wins per 100			A/C	Defines the winning chances for a jackpot (wins per 100 purchases). A win means that the customer, after completing the purchase, can select another drink that will be free.
Machine Info	Asset Tag			A/C	Label for the machine. The owner of the machine can here define a number of characters to distinguish this machine from other machines, for example in documentation.
	Machine Type			A/-	Shows the type of machine. No editing
	BM SW version			A/-	Software version, Ordering module. No editing
	TM Sw version			A/-	Software version, Tank module. No editing
Statistics	Total Vends			A/-	Shows the total number of purchases made from the machine. No editing
	Resetable vends			A/-	The number of cups sold since the previous reset. No editing
	Total cash amount			A/-	The total amount in the coin box. No editing
	Resetable cash			A/-	The amount in the coin box since the previous reset. No editing
	Tot value MDB			A/-	The total amount from key purchases. No editing
	Resettable MDB choice			A/-	The key purchases amount since the previous reset. No editing
	Reset statistics			C/C	Resets the statistics

Hardware test	Test Dispenser	Dispenser X		C/C	Tests a dispensing motor. No editing See more about this in Section 3 of the Service Instructions, "Test running".
	Test Valves	Valve X		C/C	Tests an outlet valve. No editing See more about this in Section 3 of the Service Instructions, "Test running".
	Test Whipper	Whipper X		C/C	Tests an whipper motor. No editing. See more about this in Section 3 of the Service Instructions, "Test running".
	Test Invalve			C/C	Tests an inlet valve. No editing. See more about this in Section 3 of the Service Instructions, "Test running".
	Test Heater			C/C	Tests the heater element. No editing. See more about this in Section 3 of the Service Instructions, "Test running".
	Test Floatswitch			C/C	Tests the float switch. No editing. See more about this in Section 3 of the Service Instructions, "Test running".
	Test Cup Sensor			C/C	Tests the cup sensor. No editing. See more about this in Section 3 of the Service Instructions, "Test running".
	Test Light/ Sound			C/C	Tests the light and sound. No editing. See more about this in Section 3 of the Service Instructions, "Test running".
	Test Temp Sensor			C/C	Tests the temperature sensor. No editing. See more about this in Section 3 of the Service Instructions, "Test running".

2.3.5 Menu summary

2.3.5.1 Things to take into account before delivery

Main Menu > Variant settings

The machine EPROM contains all the charging variants that are available for this machine. A loading table ensures that the correct drink comes out for each button press and that the drink is correctly composed of drink powder and water. No further programming is necessary if the factory-installed values are accepted. When a loading table has been selected, it is therefore important:

- ❑ that the correct menu stickers are in place (with or without price information),
- ❑ that the correct drink cartridges have been installed.
- ❑ that a copy of the loading table is put up inside the machine (or kept in another safe place), so that the various drinks are placed in the correct locations during restocking.

Main Menu > Payment > Coin Validator

These menus are associated with the payment equipment, that may differ according to the client's wishes.

Main Menu > Display Language

The correct language must be set for the display.

2.3.5.2 Programming that is applicable during the use of the machine

This programming shall normally be performed on site by the client.

> ***NOTE!*** *The contents or recipes for the drinks are primarily determined by the loading table. To a certain extent these values, together with pricing information for both the basic drinks and such supplements as sugar, whitener and topping, are determined by the programming of each drink button (the Beverage Buttons), or by programming the Option Buttons. The menu determines which of these shall apply.* ***Main Menu>Option Buttons>Override btns.*** *The value here is YES or NO.*

2.3.5.2.1 Price setting

These menus are concerned with setting the prices of drinks and may be altered subsequently.

Main Menu > Beverage Buttons > ButtonX > Price

Price for a single drink.
Service code A(display)/B(alter).

Main Menu > Option Buttons > Strength Price

The price of an extra strength drink.
Service code A(display)/B(alter).

Main Menu > Option Buttons > Sugar Price

The price of extra sugar.

Service code A(display)/B(alter).

Main Menu > Option Buttons > Cream Price

The price of extra whitener.
Service code A(display)/B(alter).

Main Menu > Option Buttons > Volume Price

The price of extra volume.

Service code A(display)/B(alter).

Main Menu > Option Buttons > Charge Mode Price

Defines whether the customer will be debited a fixed amount for a changed drink, or whether the price will depend on how much the customer changes the drink.

Service code A(display)/B(alter).

Main Menu > Payment > Price Settings > Same price f. all

Defines whether all drinks shall have the same price.

Service code A(display)/C(alter).

Main Menu > Payment > Price Settings > Price f. all

Defines the same price for all drinks.

Service code A(display)/C(alter).

2.3.5.2.2 Statistics

Processes the operational statistics.

Main Menu > Statistics

No editing

CE Doc No: 37004/ENG- 2

3

Repair/Adjusting

Service Instructions Lynx

In this chapter

- ❑ Test running
- ❑ Troubleshooting
- ❑ Installation description
- ❑ Wiring diagram

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3.1 Test running

The Lynx machine components are tested by means of the software.

This method may only be used by servicing staff for test running.

C authorization required.

3.1.1 Entering the test mode

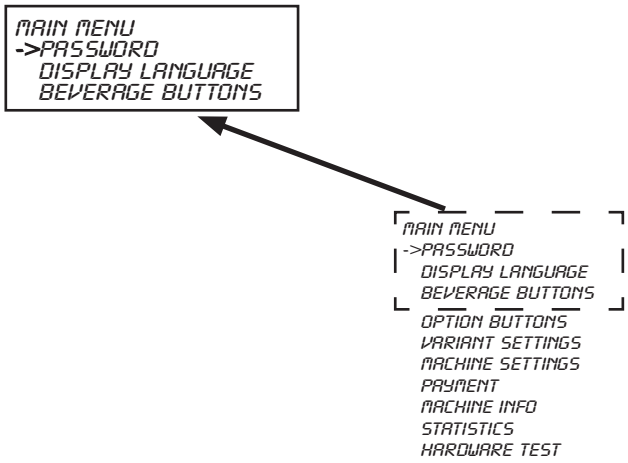
1 Open the door.

2 Press the **programming button** (Config. button) on the control printed circuit card behind the inner panel of the door. Use a pen or similar thin object.

Alternative: Hold **button 8** pressed in for about 10 seconds.

The machine is now in the programming mode. Refer to ***"Programming"*** in **Chapter 2**.

The display will show:



3 Press the **UP** or **DOWN** arrow buttons to take the cursor to "*PASSWORD*" and then **SELECT**.

4 Enter the C authorization password. Increase or decrease the value using the **UP** or **DOWN** arrow keys. Confirm the value using **SELECT**. Return to the menu list with **BACK**.

5 Go to the "*HARDWARE TEST*" menu.

3.1.1.1 Dispensing motor

The machine contains 6 dispensing motors, one for each drink cartridge.

HARDWARE TEST>TEST DISPENSERS>DISPENSER 1

1 Press **SELECT**. The selected dispensing motor will now operate for 3 turns.

2 Press **BACK** to return, and change to the next dispensing motor. Press **SELECT**, so that this dispensing motor operates for 3 turns.

3 Repeat to test the other dispensing motors. Then press **BACK** to return to "*HARDWARE TEST*".

3.1.1.2 Outlet valves

The machine usually has 3 outlet valves.

HARDWARE TEST>TEST VALVES>VALVE 1

1 Press **SELECT**. The selected valve will open for 3 seconds.

2 Press **BACK** to return, and change to the next valve. Press **SELECT**, so that this valve opens for 3 seconds.

3 Repeat to test the third valve. Then press **BACK** to return to "*HARDWARE TEST*".

3.1.1.3 Whipper motor

The machine contains 2 whipper motors. There is one under each funnel.

HARDWARE TEST>TEST WHIPPER>WHIPPER 1

1 Press **SELECT**. The selected whipper motor will operate for 3 seconds.

2 Press **BACK** to return, and change to the next whipper motor. Press **SELECT**. This whipper motor will also operate for 3 seconds.

3 Then press **BACK** to return to "*HARDWARE TEST*".

3.1.1.4 Inlet valve

HARDWARE TEST>TEST INVALVE

1 Press **SELECT**. The inlet valve will open for 3 seconds.

2 Press **BACK** to return to "HARDWARE TEST".

3.1.1.5 Hot water tank heating element

HARDWARE TEST>TEST HEATER

1 Press **SELECT**. The heating element will be switched on for 30 seconds.

2 Press **BACK** to return to "HARDWARE TEST".

3.1.1.6 Floatswitch in the hot water tank

HARDWARE TEST>TEST FLOATSWITCH

1 Press **SELECT**. The floatswitch status is shown (water level high/low).

2 Press **BACK** to return to "HARDWARE TEST".

3.1.1.7 Cup sensor

HARDWARE TEST>TEST CUP SENSOR

1 Press **SELECT**. The status of the cup sensor is displayed (cup sensor: Cup/No cup).

2 Press **BACK** to return to "HARDWARE TEST".

3.1.1.8 Presentation light and buzzer

HARDWARE TEST>TEST LIGHT/SOUND

1 Press **SELECT**. The presentation light is lit and the buzzer is activated.

2 Press **BACK** to return to "HARDWARE TEST".

3.1.1.9 Thermometer in the hot water tank

HARDWARE TEST>TEST TEMP SENSOR

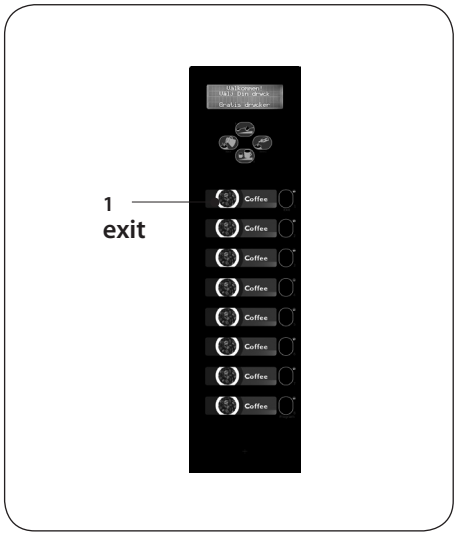
1 Press **SELECT**. The current temperature in the tank is displayed.

2 Press **BACK** to return to "HARDWARE TEST".

3.1.2 Leaving the test mode

1 Use **BACK** to return to the Main menu.

2 Press **button 1** (exit)



3.2 Troubleshooting

3.2.1 Troubleshooting using error codes

Error code	Description	Cause / Remedy	
E00	Machine out of order	No communication between the PC-boards and/or the display.	❑ BM out of order. ❑ The jumper in the TM is lost.
E03	Overpower motors	High power consumption by any of motor, pump, inlet- or outlet valve.	Measure the resistance
E06	Cup in place.	There is a cup or other object where the cup should be.	Remove the cup.
E08	Internal error processor (SM)	❑ Internal error in the SM PC-board. ❑ Too old EPROM together w. new TM PCB.	❑ Change the PCB.
E09	RS-485 error (SM)	SM-, TM- or display PCB broken.	Change by try.
E10	Maximum time for first filling obstructed ***The overfill protector has not triggered***	❑ Water supply obstructed	❑ Make sure water filling is reaching the machine (temporary interruption to the mains water supply may be the cause of the fault) ❑ If the machine is equipped with a water filter - check if the filter is blocked and if it is, replace the cartridge. ❑ Clean inlet valve filter
		❑ Inlet valve not opening	❑ Measure voltage at valve outputs when purchasing a drink. If voltage = 20 to 25 V, the inlet valve is defective and needs changing. If the voltage is below 20 V, see if the float switch is indicating low water (0 - 1 W). If not, replace switch, otherwise circuit board.
		❑ Water leaking from the tank	❑ See fault: 'Machine leaking water'.
E10	Maximum time for first filling obstructed ***The overfill protection has triggered. The overfill protector can be reset, see section 'Resetting the overfill protector' in the Operator's Manual.***	❑ Float switch in tank has not given signal to interrupt flow of water.	❑ Check that the switch is correctly seated (straight) and then measure its resistance in raised position. If resistance is below 3 Mohm, the switch is defective and needs changing.
		❑ Float switch working but circuit board or inlet valve defective.	❑ Reset level control, check connections between float switch, circuit board and inlet valve. Then measure voltage on inlet valve when purchasing drink. If the voltage (24 V approx.) is not interrupted when the float switch indicates high water level, the circuit board is defective and needs changing. If the voltage is interrupted but water continues to flow in, the inlet valve is defective and needs changing.

Error code	Description	Cause / Remedy	
E11	Maximum level not reached within 3 servings ***The overfill protector has not triggered***	❑ Water supply obstructed	❑ Make sure water filling is reaching the machine (temporary interruption to the mains water supply may be the cause of the fault) ❑ If the machine is equipped with a water filter - check if the filter is blocked and if it is, replace the cartridge. ❑ Clean inlet valve filter
		❑ Inlet valve not opening	❑ Measure voltage at valve outputs when purchasing a drink. If voltage = 20 to 25 V, the inlet valve is defective and needs changing. If the voltage is below 20 V, see if the float switch is indicating low water (0 - 1 W). If not, replace switch, otherwise circuit board.
		❑ Water leaking from the tank	❑ See fault: 'Machine leaking water'.
E11	Maximum level not reached within 3 servings ***The overfill protection has triggered. The overfill protector can be reset, see section 'Resetting the overfill protector' in the Operator's Manual.***	❑ Float switch in tank has not given signal to interrupt flow of water.	❑ Check that the switch is correctly seated (straight) and then measure its resistance in raised position. If resistance is below 3 Mohm, the switch is defective and needs changing.
		❑ Float switch working but circuit board or inlet valve defective.	❑ Reset level control, check connections between float switch, circuit board and inlet valve. Then measure voltage on inlet valve when purchasing drink. If the voltage (24 V approx.) is not interrupted when the float switch indicates high water level, the circuit board is defective and needs changing. If the voltage is interrupted but water continues to flow in, the inlet valve is defective and needs changing.
E12	Overpower, exits	High power consumption by any of pump, inlet- or outlet valve.	Measure the resistance.
E13	Low temperature Temperature in water tank below 50° C.	*If the temperature fails to rise:* ❑ No current reaching machine	❑ Check mains cable and fuse
		❑ Overheating protection triggered	❑ Reset as per description in section ***'Resetting the overheating protector' (Operator's Manual).***
		❑ Temperature sensor not working.	❑ Change the temperature sensor. (can not be adjusted)
		❑ Heater element faulty.	❑ Change the heater element
E14	Illogical temperature Temperature recorded in water tank below 1° C or above 110° C	❑ Temperature wrongly set or temperature sensor faulty.	❑ Change the temperature sensor (can not be adjusted)
		❑ Too little water in tank.	❑ See 'E10, E11'
E15	Internal fault in microprocessor.	Computer fault in tank module.	Change the PC-board by try.
E16	RS-485 fault	❑ TM-card or display PCB broken.	❑ Change by try.
		❑ The "jumper" is not in the correct position	❑ Adjust

Error code	Description	Cause / Remedy	
E17	Fault on push-button panel	❑ Fault in connections to/from control panel ❑ Wires to control card not connected (no buttons working) ❑ Fault on control card (no buttons working) ❑ One or more buttons malfunctioning	❑ Check wiring ❑ Check and plug in poss. loose contact. ❑ Change the PCB. ❑ Change the push-button panel.
E18	MDB/ICP-error, no answer	MDB-error in the change giver, key system or BM PVB.	Check, and change the broken device.
E19	Internal fault local processor (BM)	❑ Shorting bar J11 missing on door card ❑ Data error in PC-Board BM	❑ Check shorting bar J11 (adjacent programming button) ❑ Change
E21	Coin tube activated	❑ A coin or objekt is stuk in the coin tube ❑ There may be magnetic object or rubbish in the coin dispenser. ❑ The coin dispenser is full ❑ The coin mechanism is defective ❑ Poor fit between the coin tube and the coin dispenseer.	❑ Clear the tube ❑ Press the coin return button ❑ Dismantle coin dispenser and remove any rubbish. ❑ Empty the coin box ❑ Replace the coin mechanism. ❑ Check that the opening of the coin tube is lined up with the input of the coin dispenser.
E22	Timeout initiating	The display has no communication with the BM or SM PCB..	Check the communication.
E23	Timeout serving	Cannot be shown. The error is self-correcting.	
E24	Display error, no answer	The display broken.	Change it.
E27	MDB Keyreader, no answer	The card reader is broken.	Change it.
E28	MDB Universal slave, no answer	The slave is broken.	Change it.
E29	EEPROM, write/read error	EEPROM is broken.	Change the BM PCB.

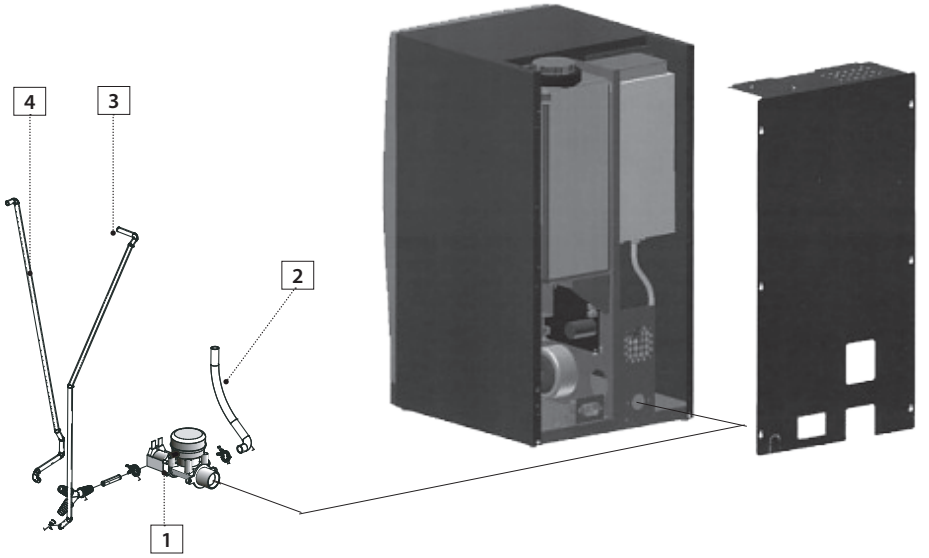
3.2.2 Troubleshooting, otherwise

Description	Cause	Remedy
The coin dispenser is not accepting coins	❑ Defective coin	❑ Try another coin
	❑ Incorrect coin denomination	❑ Check allowable coin denominations.
	❑ Mismatch between coin mechanism and country in system program.	❑ Compare coin mechanism with program setting. Correct any errors by reprogramming or changing coin mechanism.
	❑ The coin mechanism is defective	❑ Replace the coin mechanism
	❑ MDB not activated	❑ Activate MDB (Programming menu 40)
	❑ MDB key/card used and key charging not permitted	❑ Remove key/card or activate charging (Programming menu 45)
The coins do not fall down into the coin dispenser	❑ The coin box is full	❑ Empty the coin box
	❑ A foreign object or coin has got stuck in the coin tube.	❑ Press the coin return button.
	❑ Poor fit between the coin tube and coin dispenser.	❑ Check that the opening to the coin tube is directly above the inlet to the coin dispenser.
No display text	❑ There is no power	❑ Check the fuse and wall
	❑ The display is broken.	❑ Change it.
	❑ EEPROM in wrong position.	❑ Check.
Machine leaking or flooding	❑ Level control in inlet valve malfunctioning	❑ Replace inlet valve. See section " ***Replacing the inlet valve".*** Seek and cure cause of overfilling. See error codes E10, E11.
	❑ Leak at heater element or float switch.	❑ Check tank gasket and make sure nuts are tight.
	❑ Inlet or outlet valve dripping.	❑ Check hose connections and replace valve.
Too little water filling	❑ Water supply time wrongly programmed	❑ Check volume setting for the button or global.
	❑ Too low water pressure. Tank not filling up.	❑ Increase pressure if possible. Otherwise increase amount of water.
	❑ Low water level in tank.	❑ See Error codes E10, E11
	❑ Outlet valve blocked	❑ Remove limescale and dirt.
	❑ Hose constricted	❑ Replace kinked hose.
Water not flowing out into cups.	❑ Faulty outlet valve or circuit board	❑ Check first that connection between the circuit board and the outlet valve look right. Measure the voltage at the outlet valve when ordering a drink. If voltage is below 20 V the circuit board is defective and needs changing. If the voltage is 20 - 25 V and the outlet valve does not open, the valve is defective and needs changing. See section: ***"Replacing the outlet valve".***
	❑ Water tank empty	❑ See Error codes E10. E11.

3.3 Installation description

3.3.1 Changing the inlet valve

In order to gain access to the inlet valve, the back plate must be removed.



1. *Inlet valve*
2. *Hose to water tank*
3. *Overfill pipe between the inlet valve and the water tank*
4. *Pipe for venting the inlet valve*

⚠ *Remove the mains power plug from the wall socket.*

1 Close the supply water tap before the machine.

2 Open the door and pull out the drain hose from the hot water tank. Put a bucket under the drain hose.

3 Release the clamp and the hose plug to allow the water to drain out into the bucket.

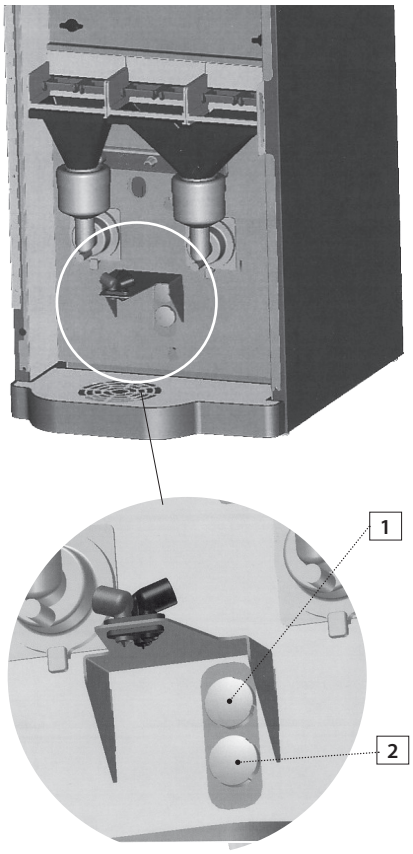
4 Turn the machine around and remove the back plate.

5 Detach the inlet hose, the overflow pipe and the hose to the water tank.

6 Remove the valve securing screws and change the valve.

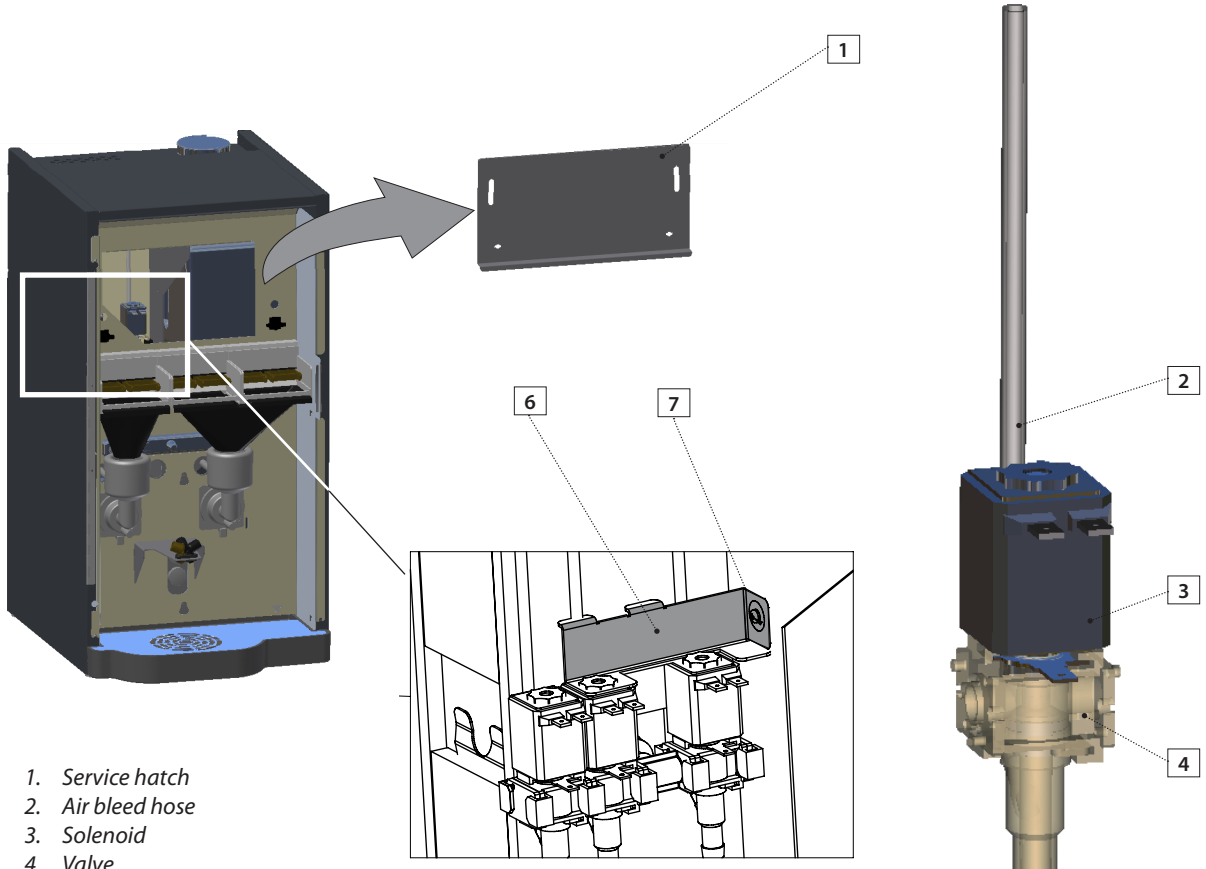
7 Reassemble in the reverse order.

Check afterwards that there is no leakage.



1. *Drain hose, cold water tank*
2. *Drain hose, hot water tank*

3.3.2 Changing the outlet valves



1. *Service hatch*
2. *Air bleed hose*
3. *Solenoid*
4. *Valve*
5. *Outlet*
6. *Valve assembly support*
7. *Screw*

Outlet valve

The machine usually has three outlet valves. All are for hot water. The valve that is to be used is selected automatically and cannot be set.

The complete valve assembly is changed and replaced by an exchange unit.

⚠ *Remove the mains power plug from the wall socket.*

1 Turn off the water supply to the machine.

2 Empty the hot water tank. **See Section 3.3.1** ***"Changing the inlet valve"*** steps 2 and 3.

3 Remove the **service hatch**.

4 Remove the **valve assembly support (6)** by removing the **screws (7)**.

5 Remove all the wiring from the valves. Mark the wiring so that it can be refitted correctly.

6 Disconnect the hoses from the outlet valves.

7 Detach the valve assembly from the tank.

8 Replace the complete assembly.

9 Reassemble in the reverse order.

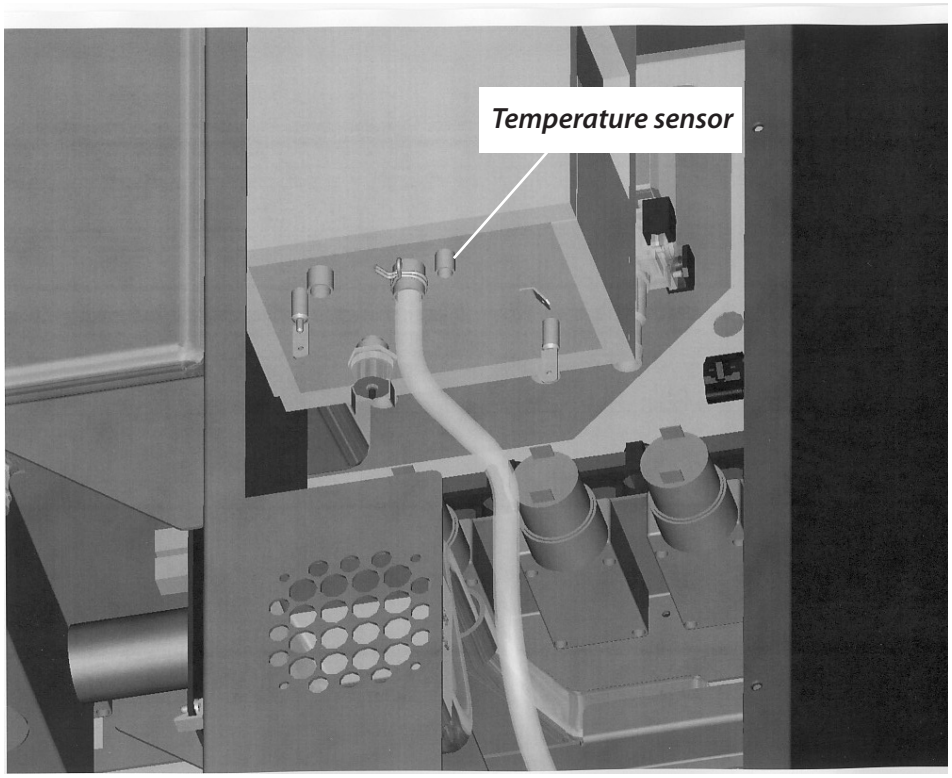
Check afterwards that there is no leakage.

Mark the wiring so that it can refitted correctly.

3.3.3 Changing the temperature sensor

The temperature sensor is located in a pipe at the bottom of the tank.

It is accessed from the underside of the hot water tank, with the back plate removed.

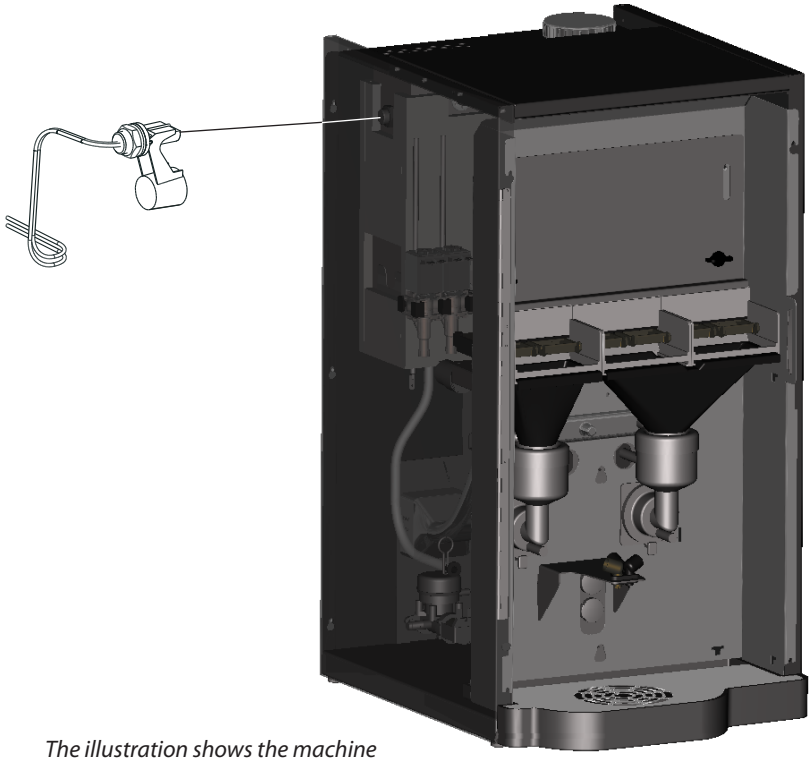


Remove the mains power plug from the wall socket.

1. Turn the machine around and remove the back plate.
2. Pull the sensor straight down from the bottom of the tank. Dismantle the clamping ring.
3. Remove the wiring connection **J 5** from the tank module printed circuit board.

   The wiring is colour-coded blue/white/black. Refer to the electrical connections schematic diagram on page 17.
4. Replace the temperature sensor.
5. Reassemble in the reverse order.

3.3.4 Changing the level sensor



The illustration shows the machine with its door open (detached) and as if the side wall was transparent.

⚠ *Remove the mains power plug from the wall socket.*

1 Turn off the water supply to the machine.

2 Empty the hot water tank. **See Section 3.3.1** ***"Changing the inlet valve"*** steps 2 and 3.

3 Turn the machine around and remove the back plate.

4 Detach the wiring from connector **J 4** on the tank module (TM) printed circuit board. Refer to the TM Module electrical connections schematic diagram.

5 Remove the tank lid.

6 Unscrew the nut on the outside and remove the faulty level sensor. It is recommended that a 24 mm spanner is used. Also remove the old gasket!

7 Install the new level sensor with a **new gasket**. Only tighten the nut enough to ensure that the level sensor is sealed against the water tank, not too tight so that the threads will be damaged.

8 Cut the new wiring to a suitable length. Strip the ends and fit them to connector **J4** on the printed circuit board.

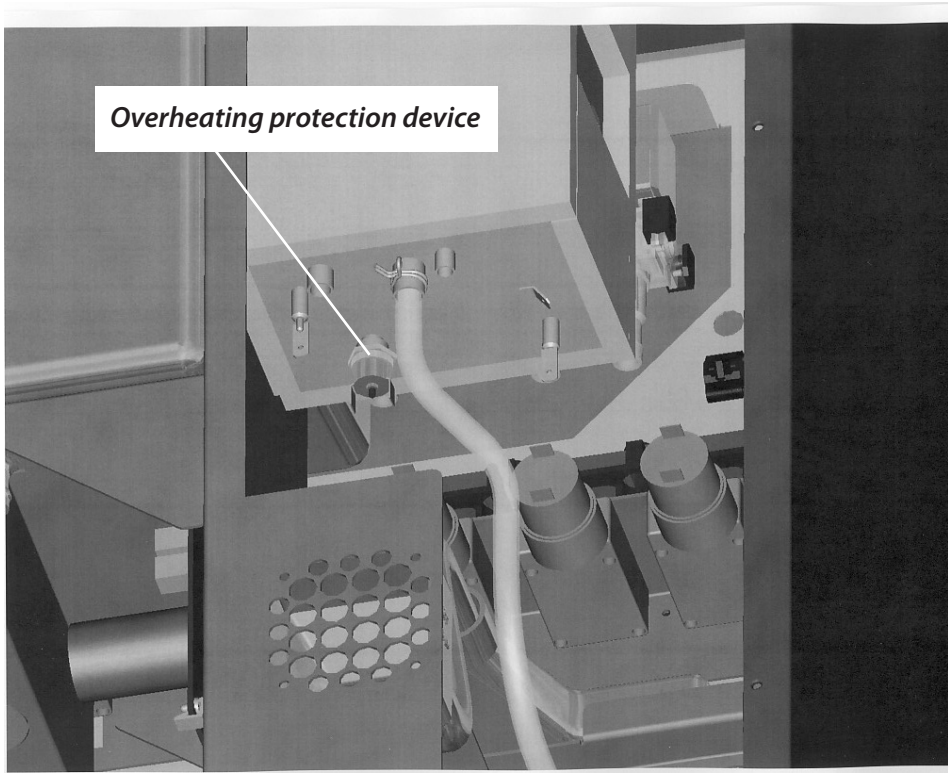
9 Reassemble in the reverse order.

⚠ *NOTE! The water may be hot!*

Check afterwards that there is no leakage.

3.3.5 Changing the overheating protection unit

The overheating protection unit is screwed into the bottom of the tank. It is accessed from the rear, with the back plate removed.



⚠ *Remove the mains power plug from the wall socket, and wait for about 10 minutes.*

1 Turn the machine around and remove the back plate.

2 Remove the electrical connections from the overheating protection unit.

3 Using a socket spanner, unscrew and replace the overheating protection unit.

4 Reassemble in the reverse order and reconnect the mains power plug.

⚠ ***NOTE!*** *The water may be hot!*

Check afterwards that there is no leakage.

3.3.6 Changing the display

The display is secured to the inside of the door by two screws.

> ⚠ *Remove the mains power plug from the wall socket.*

1 Open the machine door.

2 Gently pull on the door panel so that the plugs on the left side are released. These then remain in the panel for easy refitting.

3 Detach the **J 18** connection on the ordering module printed circuit board. Refer to the electrical connections schematic diagram.

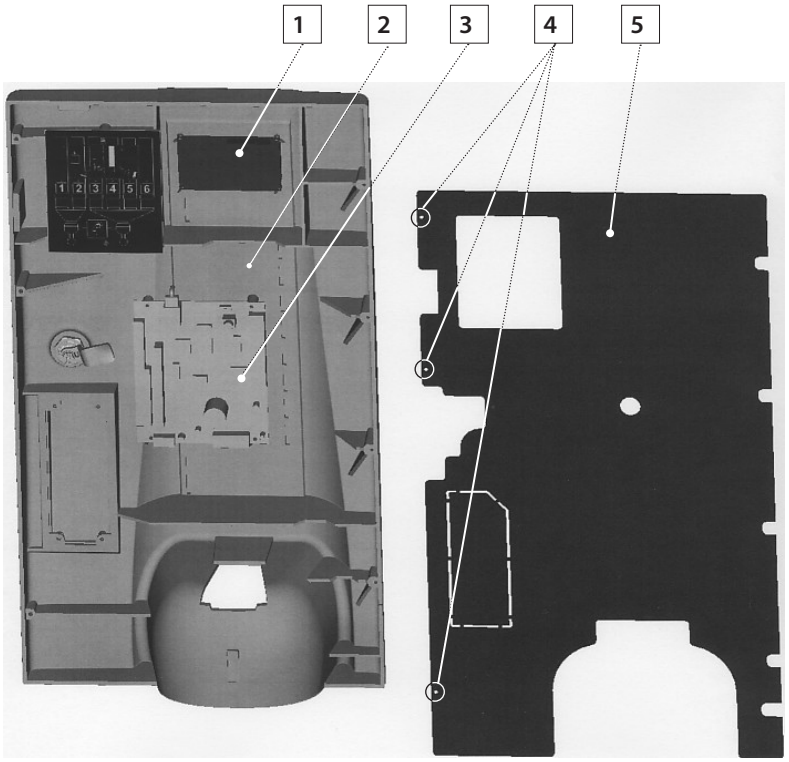
4 Detach the cover panel from the display, unscrew the display and replace it.

5 Connect the ribbon cable from the new display to the printed circuit board.

6 When refitting, push the door panel inwards at the right so it hooks under the hinge. Push to secure the plugs on the left side.

7 Close the machine door.

8 Put the mains power plug back into the wall socket and test the machine.



1. *Display*
2. *Button panel*
3. *Ordering module (motherboard) printed circuit board*
4. *Plastic plugs with barbs*
5. *Door panel*

3.3.7 Changing the button panel

The button panel is glued to the door.

> ⚠ *Remove the mains power plug from the wall socket.*

1. Open the machine door.
2. Gently pull on the door panel so that the plugs on the left side are released. These then remain in the panel for easy refitting.
3. Detach the button panel ribbon cable from the printed circuit board. Refer to the electrical connections schematic diagram.
4. Remove the button panel by releasing one of its corners. For example, a small screwdriver or some kind of plaster trowel can be used as a pry tool. Then the panel is pulled off.
5. The new button panel is self-adhesive, with protective film that must be removed before the panel is secured.

   > ***Important!*** *Install the new panel correctly first time, since it cannot be adjusted afterwards!*

   Connect the ribbon connector.
6. When refitting, push the door panel inwards at the right so it hooks under the hinge. Push to secure the plugs on the left side.
7. Close the door.
8. Put the mains power plug back into the wall socket and test the machine.

3.3.8 Changing the validator

The validator (coin mechanism) is accessible with the front door open.

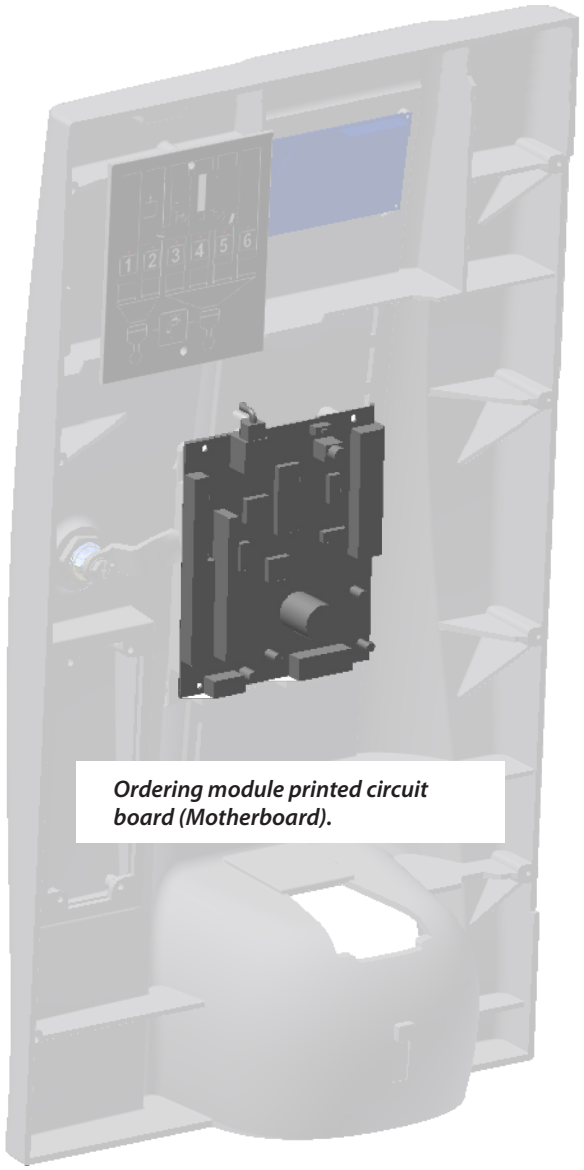
> ⚠ *Remove the mains power plug from the wall socket.*

1. Open the door.
2. Detach the wiring from the validator.
3. Remove the validator.
4. Connect the ribbon cable from the new validator.
5. Close the door.
6. Put the mains power plug back into the wall socket and test the machine.

MARS type: This type has three lugs which secure the validator in place. One each on the left and right sides and one at the bottom.

3.3.9 Control system printed circuit board

3.3.9.1 Ordering module (Motherboard)

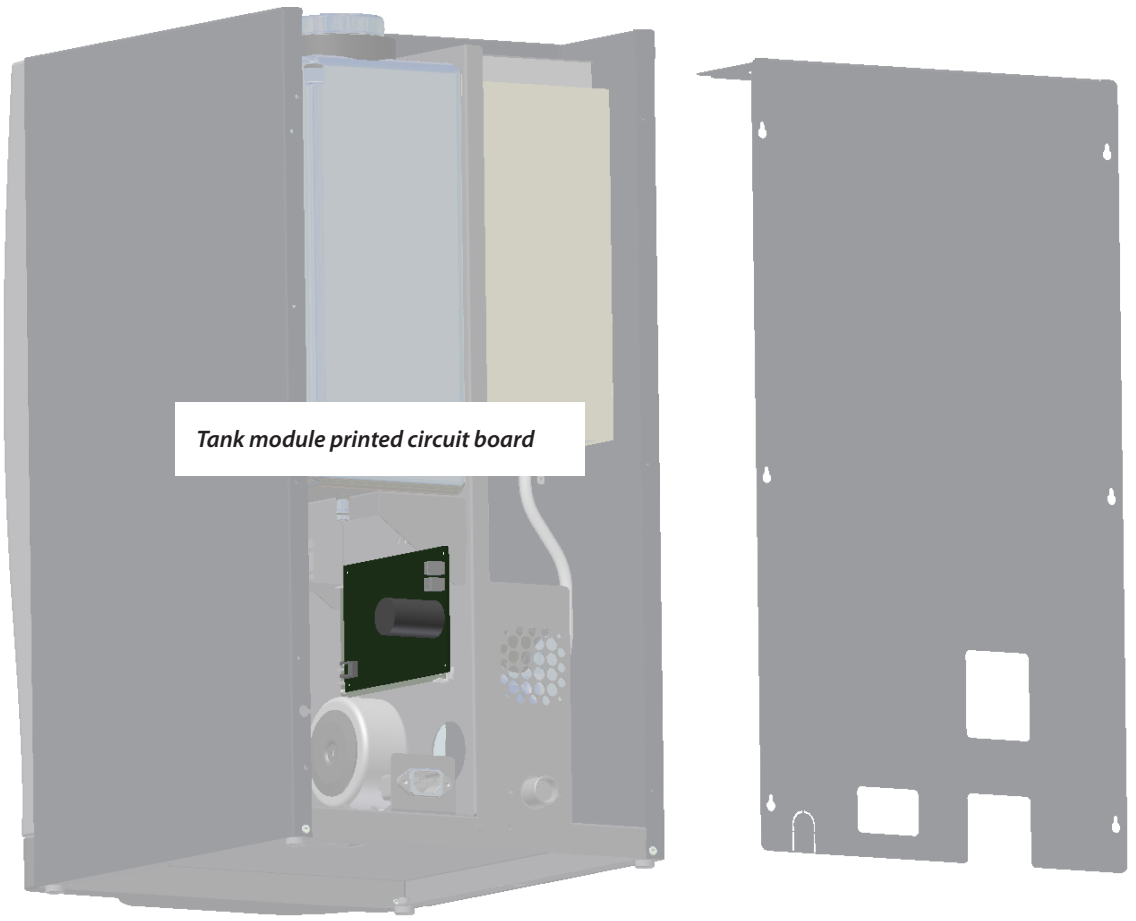


Ordering module printed circuit board (Motherboard).

Inside of the door with the door panel removed.

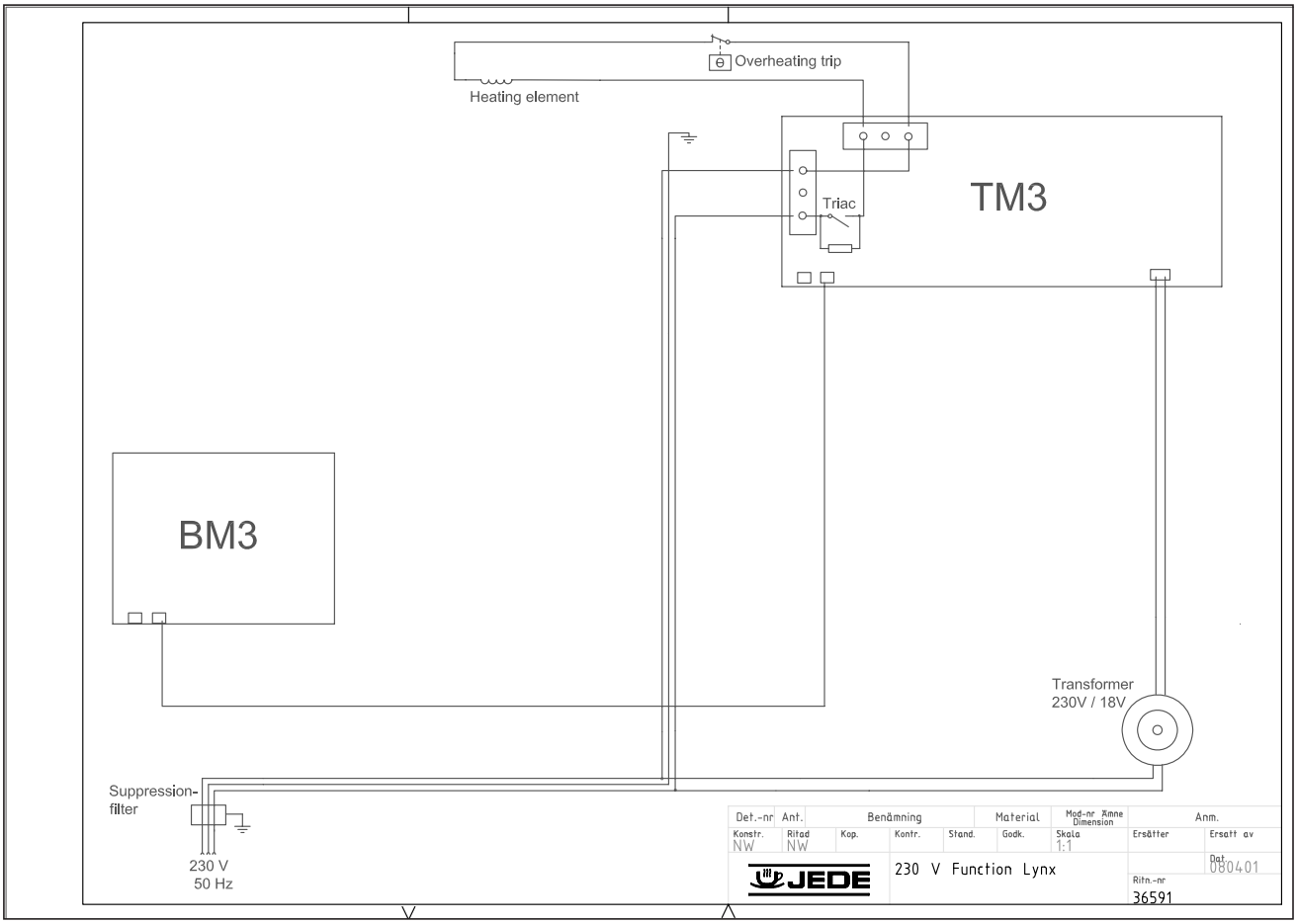
3.3.9.2 Tank module

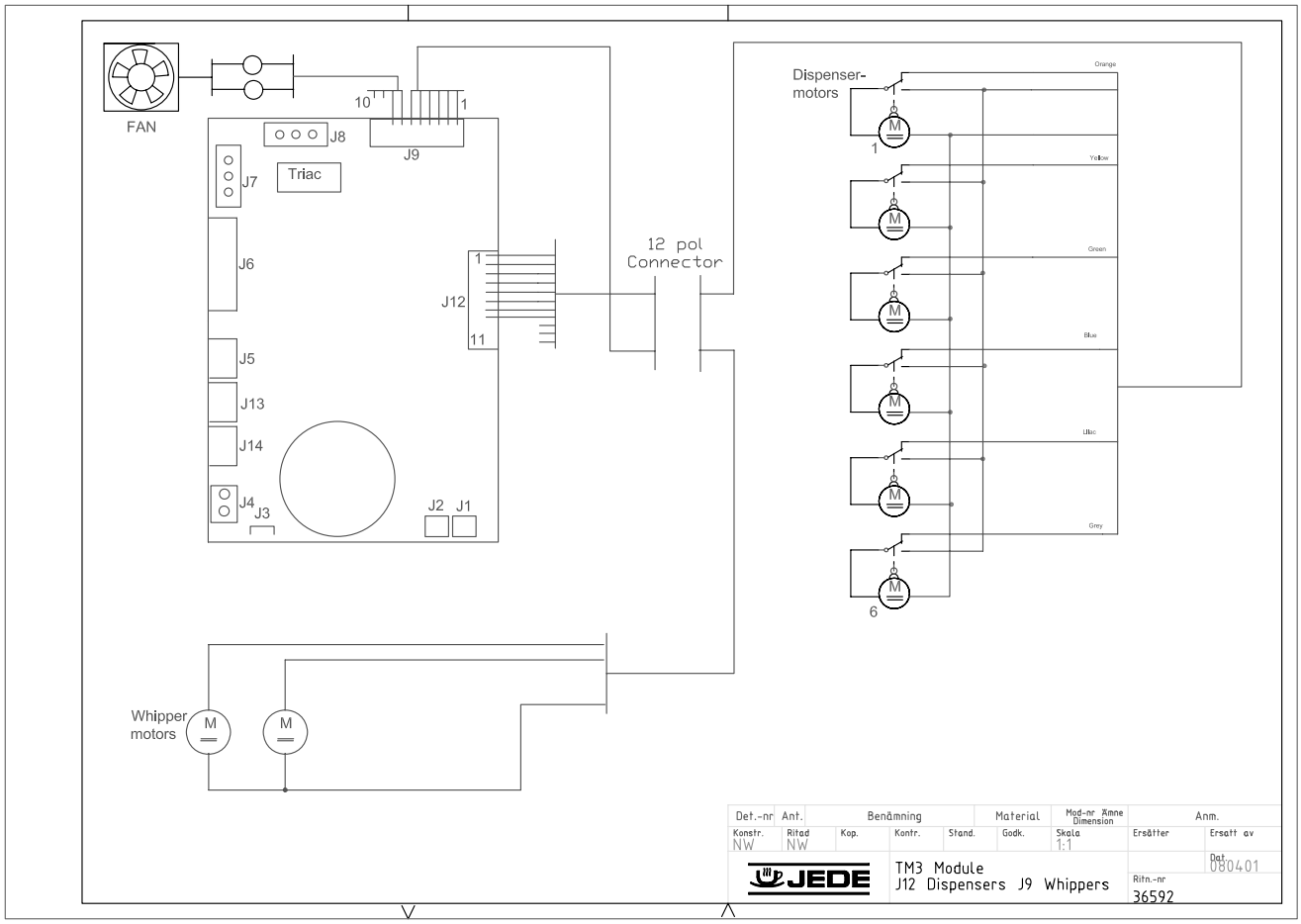
The printed circuit board is fitted inside the machine. It is accessed by removing the back plate.

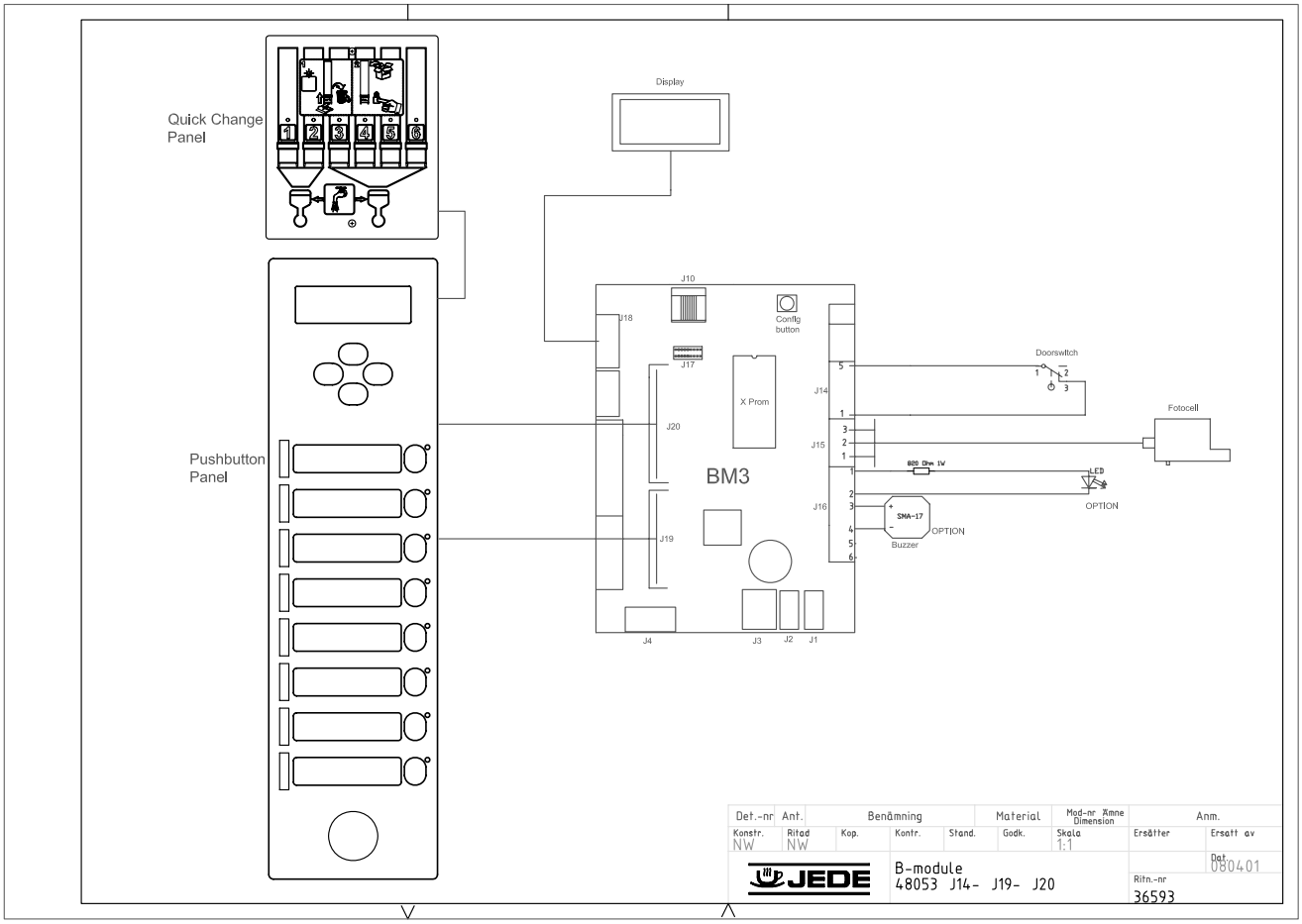


Machine seen from the rear with the back plate removed.

3.5 Wiring diagram






Quick Change Panel
Pushbutton Panel
Display
J10
J18
Config button
J17
X Prom
J20
J19
BM3
J14
J15
J16
J4
J3
J2
J1
Doorswitch
Fotocell
LED
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OPTION
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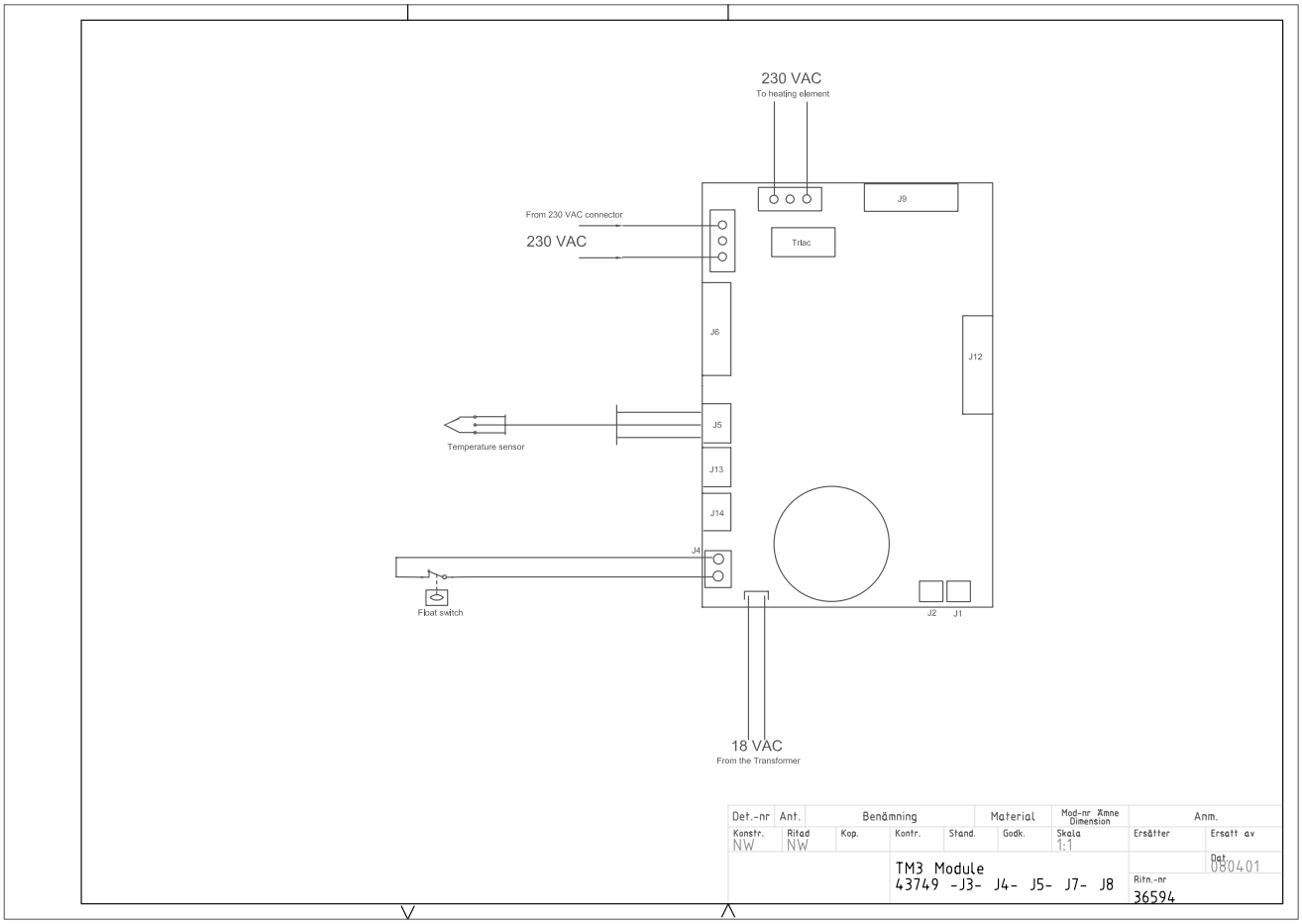
230 VAC
To heating element
From 230 VAC connector
230 VAC
J9
Triac
J6
J12
J5
Temperature sensor
J13
J14
J4
Float switch
J2
J1
18 VAC
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TM3 Module
43749 -J3- J4- J5- J7- J8
Ritn.-nr
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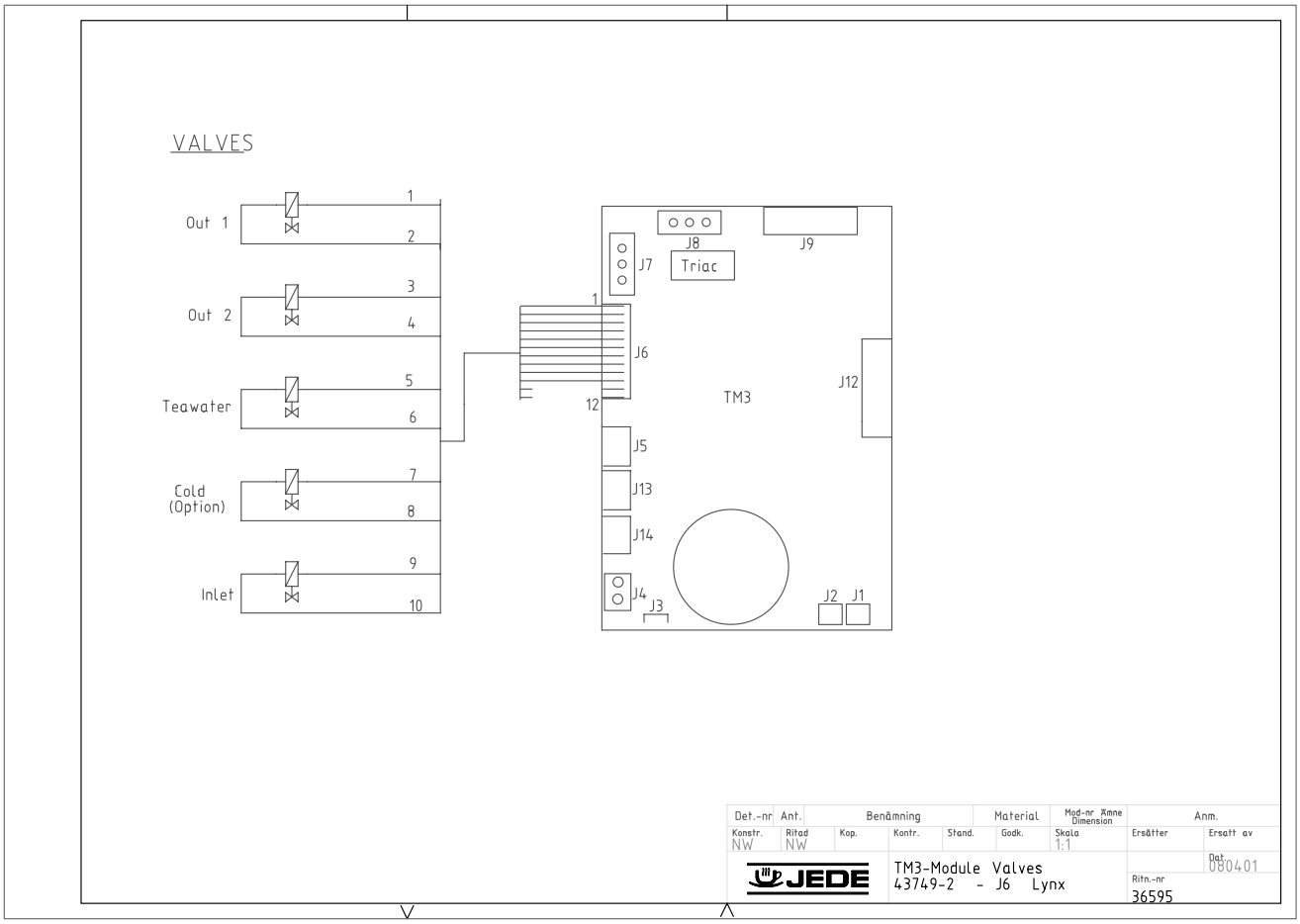


Gematech Innovation

4

Service Instructions Lynx

Spare Parts List

In this chapter

- ❑ Spare parts list Door
- ❑ Spare parts list Tank module
- ❑ Spare parts list Serving module
- ❑ Spare parts list Manual tank
- ❑ Spare parts list Mixer bowl

English

Contents

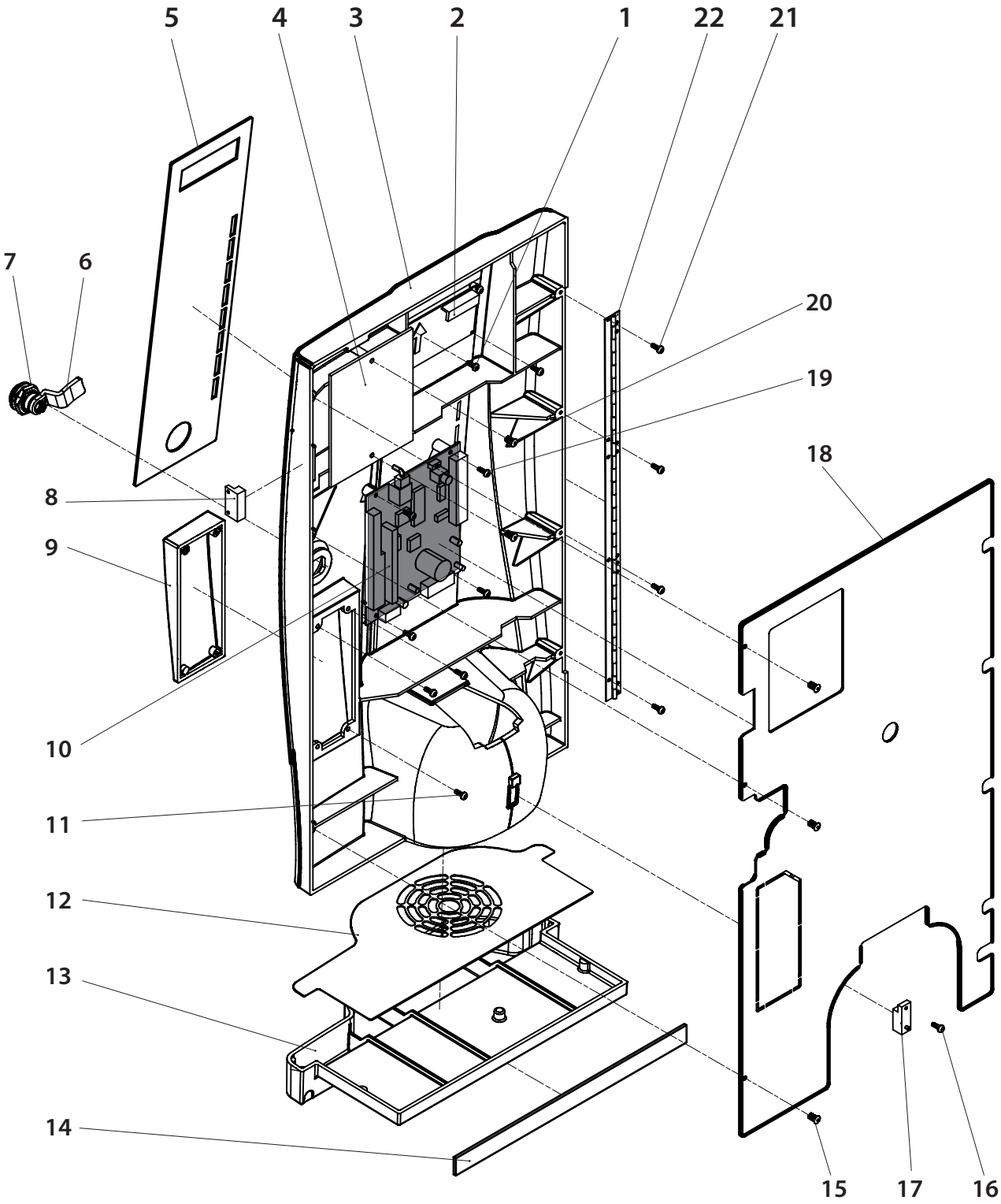
4.1 Door _____ *5*

4.2 Tank module _____ *7*

4.3 Serving module _____ *9*

4.4 Manual tank _____ *11*

4.5 Mixer bowl _____ *13*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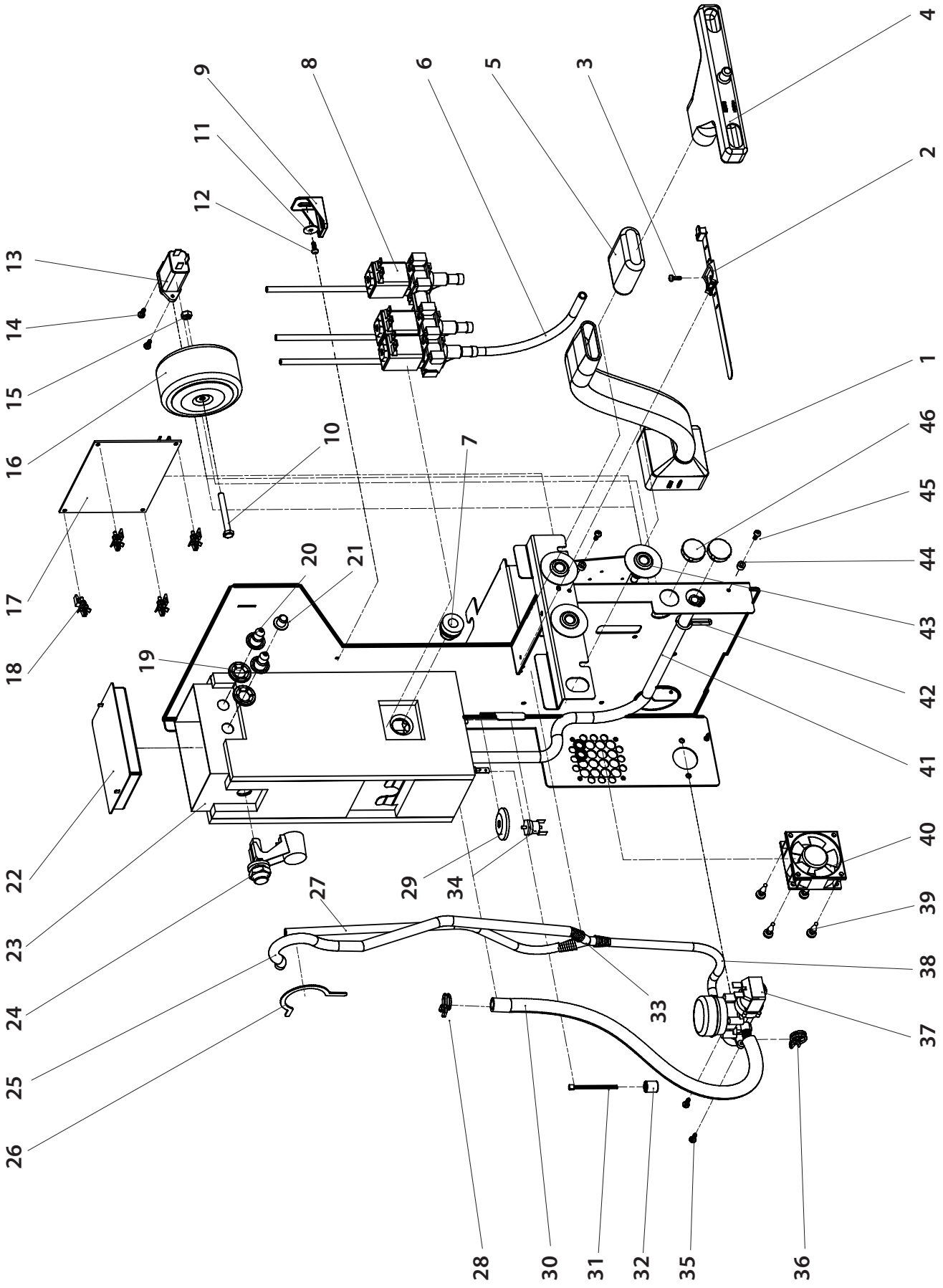
4.1 Door

Door / Dörr **Lynx**

08-10 rev. C

Recommended spare parts

Pos. No.	Part No.	Term	Benämning	Antal Qty.
1		Screw RX-PT 2-28x8	Skruv RX-PT 2-28x8	2
2	43599	Display	Display	1
3	36281	Door	Dörr	1
4	36577	Quick change panel	Servicepanel	1
5	36284	Push button panel	Tryckknappspanel	1
6	35348	Latch	Låsregel	1
7	35347	Lock	Lås	1
8	35235	Reed sensor (door)	Dörrsensor	1
9	36282	Cover plate	Täcklock	1
10	43744	Mainboard BM-3	Modulkort BM-3	1
11		Screw PT KA 40x10 WN 1412	Skruv PT KA 40x10 WN 1412	3
12	36279	Drip grille	Spillgaller	1
13	36283	Driptray	Spillbricka	1
14	35342	Magnetic strip	Magnetlist	1
15	35346	Plastic rivet	Plastnit	3
16		Screw PT 3,0x10	Skruv PT 3,0x10	1
17	49253	Cup sensor	Koppsensor	1
18	36280	Cover	Bakstycke	1
19		Screw PT KA 40x10 WN 1412	Skruv PT KA 40x10 WN 1412	4
20	35346	Plastic rivet	Plastnit	2
21		Screw SPT 4,3x15	Skruv SPT 4,3x15	4
22	48703	Hinge	Gångjärn	1
< >	37002	Master key	Huvudnyckel	
< >	35357	Validator kit, complete unit	Myntboxsats, komplett	1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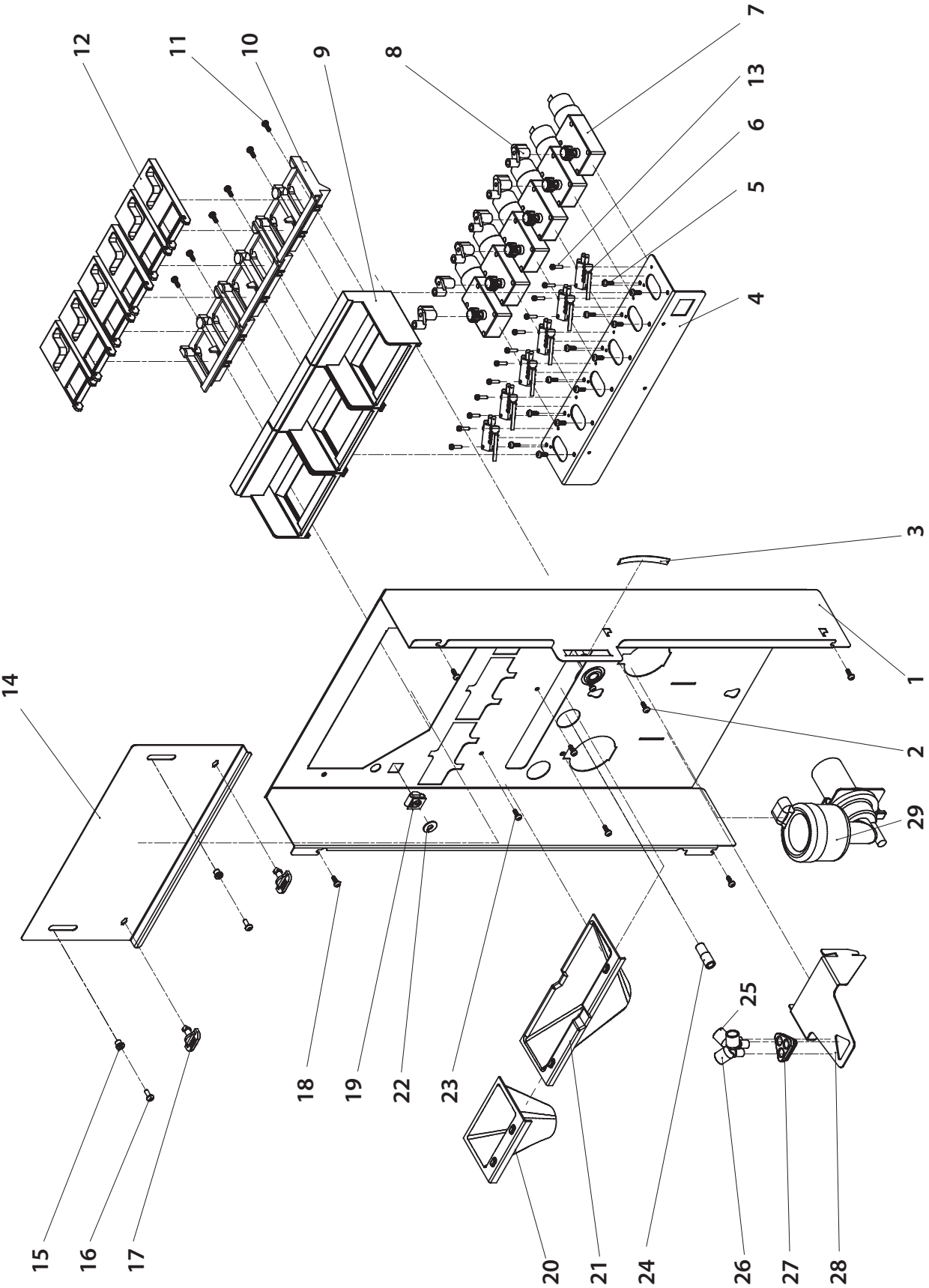
4.2 Tank module

Automatic tank / Automatisk tank **Lynx**

08-10 rev. C

Recommended spare parts

Pos. No.	Part No.	Term	Benämning	Antal Qty.
1	36277	Fan duct, rear	Bakre fläktkanal	1
2	35345	Cable tie	Buntband	1
3		Screw MRT TT M4x6	Skruv MRT TT M4x6	1
4	36276	Fan duct, front	Främre fläktkanal	1
5	36575	Filter	Filter	1
6	46110	Silicon hose, diam. 6mm.	Silikonslang, diam. 6mm.	3
7	43981	Seal	Tätning	1
8	36278	Valve unit	Ventilpaket	1
9	36586	Valve unit, fixation	Ventilhållare	1
10		Screw M6S M6x50	Skruv M6S M6x50	1
11		Washer	Bricka	1
12		Screw MRT-TT M4x6	Skruv MRT-TT M4x6	1
13	47291	Electric connection	Elanslutning m avstörningsfilter	1
14		Screw MRT-TT M3x12	Screw MRT-TT M3x12	2
15		Nut M6M	Mutter M6M	1
16	43402	Transformer 80 VA	Transformator 80 VA	1
17	43749-2	PC-Board TM-3	Modulkort TM-3	1
18	46417	Clips EHCBS-7-5-01	Clips EHCBS-7-5-01	4
19	46034	Lock washer	Låsbricka	2
20	46045	Nipple, id. 5 mm.	Nippel, id. 5 mm.	2
21	47841	Plug	Plugg	1
22	36291	Tank lid, complete unit	Tanklock kpl.	1
23	43626	Tank	Tank	1
24	43000	Float switch (grey)	Float switch (grå)	1
25	43751	Silicon hose, diam. 7,5mm.	Silikonslang, diam. 7,5mm.	1
26	36569	Metal profile	Metallprofil	1
27	43751	Silicon hose, diam. 7,5mm.	Silikonslang, diam. 7,5mm.	1
28	45185	Clamp, 14,8mm.	Trådklämma, 14,8mm.	1
29	36111	Cover	Droppskydd	1
30	45142	Inlet hose, diam. 10x15mm.	Inloppsslang, diam. 10x15mm.	1
31	49064	Temperature sensor	Temperatursensor	1
32	48713	Spacer	Distans	1
33	45030	Y-Pipe	Y-Koppling	1
34	35019	Overheating protection	Överhettningsskydd	1
35		Screw PT KA40x10	Skruv PT KA40x10	2
36	45185	Clamp, 14,8mm.	Trådklämma, 14,8mm.	1
37	46253	Inlet valve	Inloppsventil	1
38	43751	Silicon hose, diam. 7,5mm.	Silikonslang, diam. 7,5mm.	1
39	35344	Fixation, fan	Fästorgan, fläkt	4
40	43095	Fan 24V DC	Fläkt 24V DC	1
41	43751	Silicon hose, diam. 7,5mm.	Silikonslang, diam. 7,5mm.	1
42	Z93957	Clip	Clips	1
43	43978	Adaptor	Adapter	3
44	48862	Bushing	Bussning 4x8x5mm.	2
45		Screw MRT TT M4x12	Skruv MRT TT M4x12	2
46	36123	Plug, drain hose	Plugg, avtappningsslang	1
< >	49177	Water connection hose ¾" – ½"	Anslutningsslang ¾" – ½"	1
< >	47305	Mains cable (SE)	Nätkabel (SE)	1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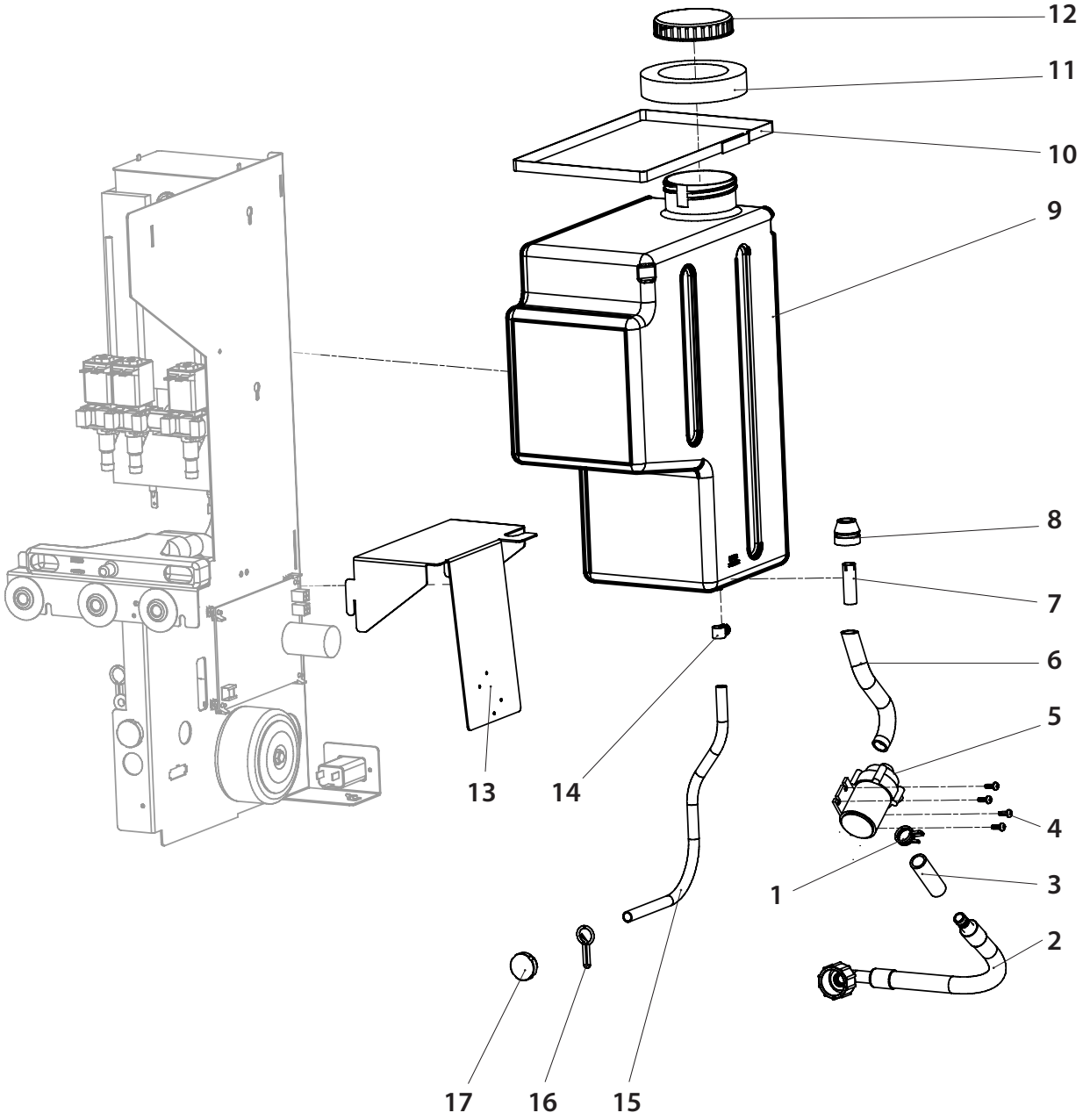
4.3 Serving module

Serving module / Serveringsmodul **Lynx**
08-10 rev. C

Recommended spare parts

Pos. No.	Part No.	Term	Benämning	Antal Qty.
1	36266	Serving module	Serveringsmodul	1
2		Screw MRT-TT M4x6	Skruv MRT-TT M4x6	2
3	36286	Flat spring	Fjäderbleck	1
4	36270	Motor bracket	Motorfäste	1
5		Screw MRT-TT M4x12	Screw MRT-TT M4x12	12
6	42542	Micro switch	Mikrobrytare	6
7	45131	Dispensing motor	Dispenser motor	6
8	36296	Crank	Vevsläng	6
9	43500-1	Holder, funnel	Hållare, tratt	3
10	36275	Holder, slide	Slidfäste	3
11		Screw SPT/7-7981-4,5x15	Screw SPT/7-7981-4,5x15	6
12	44023	Slide	Dragslid	6
13		Screw MRT-TT M3x12	Screw MRT-TT M3x12	12
14	36267	Service lid	Servicelucka	1
15	48997	Bushing	Bussning med krage	2
16		Screw MRT-TT M4x12	Skruv MRT-TT M4x12	2
17	35349	Knob	Vridtapp	2
18		Screw MRT-TT M4x6	Screw MRT-TT M4x6	4
19	35350	Locking device	Låsdon	2
20	36274	Funnel (left)	Tratt (vänster)	1
21	36273	Funnel (right)	Tratt (höger)	1
22	35351	Washer	Bricka	2
23		Screw MRT-TT M4x6	Skruv MRT-TT M4x6	3
24	43939	Spigot, hot water	Stos, utlopp varmvatten	1
25	36574	Outlet pipe (black)	Utloppsmunstycke (svart)	2
26	36573	Outlet pipe (brown)	Utloppsmunstycke (brun)	1
27	36287	Holder, outlet pipes	Hållare, utloppsmunstycken	1
28	36268	Bracket, outlet pipes	Konsoll, utloppsmunstycken	1
29		Mixer bowl with motor, see separate drawing.	Blandarskål med motor, se separat ritning.	2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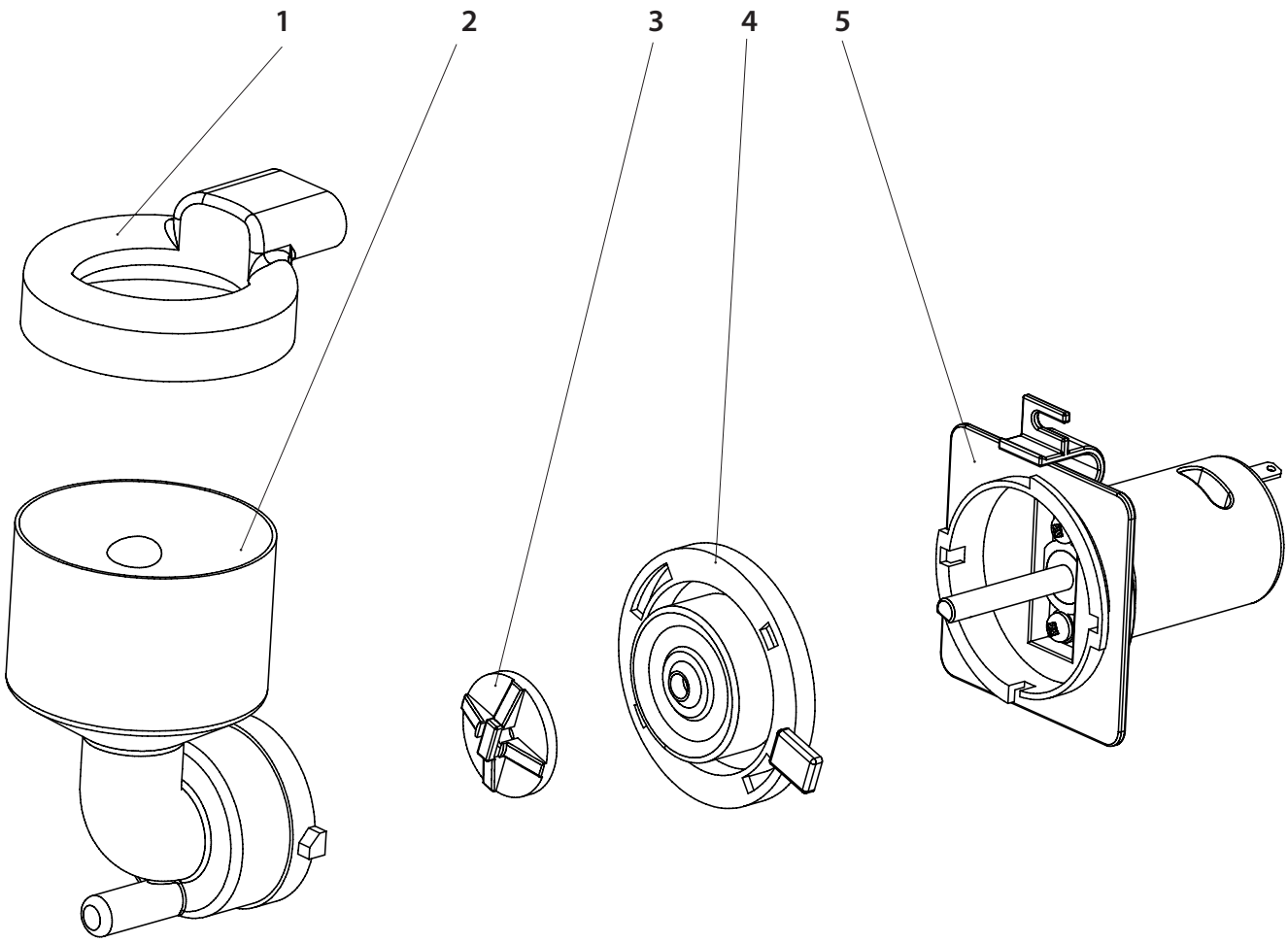
4.4 Manual tank

Manual tank / Manuell tank **Lynx**

08-10 rev. C

Recommended spare parts

Pos. No.	Part No.	Term	Benämning	Antal Qty.
1	Z93957	Clamp	Trådklämma	1
2	36587	Connection hose	Anslutningsslang	1
3	36568	Silicon hose diam. 11,5x7,5 mm.	Silikonslang diam. 11,5x7,5 mm.	1
4		Screw MRT-TT M3x12	Skruv MRT-TT M3x12	4
5	36598	Pump	Pump	1
6	45142	Silicon hose diam. 10x15 mm.	Silikonslang diam. 10x15 mm.	1
7	36589	Spigot	Stos	1
8	43981	Seal	Tätning	1
9	36285	Tank	Tank	1
10	36597	Velcro closing	Kardborreband	1
11	36299	Absorbent seal	Absorberande tätning	1
12	36588	Tank lid	Tanklock	1
13	36271	Tank shelf	Tankhållarplåt	1
14		Hose clip	Slangklämma	1
15	43751	Silicon hose diam. 7,5 mm.	Silikonslang diam. 7,5 mm.	1
16	Z93957	Clamp	Klämma	1
17	36123	Plug	Plugg	1
< >	36599	Manual tank-kit, complete unit	Manuell tank-kit, komplett	1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4.5 Mixer bowl

Mixer bowl / Blandarskål **Lynx**

08-10 rev. C

Recommended spare parts

Pos. No.	Part No.	Term	Benämning	Antal Qty.
1	43977	Mixer bowl, upper	Blandarskål, ångfälla	1
2	35354	Mixer bowl	Blandarskål	1
3	43973	Impeller	Impeller	1
4	35353	Fixation, mixer bowl	Fästplatta	1
5	35352	Mixer motor	Mixermotor	1

Gematech Innovation

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